VS2010 下配置 MPI 开发环境

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- 时 间: 2014 年 4 月 12 日



http://www.fcode.cn

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1、下载安装 MPICH2

首先从

http://www.mcs.anl.gov/research/projects/mpich2/downloads/tarballs/1.2.1p1/mpich2-1.2.1p1-win-ia3 2.msi 下载并安装 MPICH2。(本次采用 mpich2-1.3a1-win-ia32.msi)

2、配置 MPICH2

Win7 中配置 MPICH2 分为四步:

(1)安装完成后,首先更新系统环境变量,计算机->属性->高级系统设置->系统属性->高级->环境变量更新系统变量中 Path 变量(将 C:\Program Files\MPICH2\bin 添加到 Path 变量值上)

系统属性	环境变量	
计算机名 硬件 高级 系统保护 远程 要进行大多数更改,您必须作为管理员登录。 性能 视觉效果,处理器计划,内存使用,以及虚拟内存 设置(2)	Adiministor 的用户变量(0) <u>变量 值</u> mpi C.\Program Files\MPICH2\bin TEMP %USERFROFILE%\AppData\Local\Temp TMP %USERFROFILE%\AppData\Local\Temp	
用户配置文件 与您登录有关的桌面设置 设置(2)	新建 (0) [編辑 (2) 剛除 (0) 系統变量 (5)	编辑系统变量 文型名(0): Path 2010年10月1日 1000年11日
启动和故障恢复 系统启动、系统大败和调试信息 设置 (T)	安里 1自 OS Windows_NT Path C:\Program Files\Intel\MKL\9.1\ PATHEXT . COM: EXE:. BAT:. CMD:. VES:. VEE: PROCESSOR AR v66 新建(Y) 編輯(I) 酬除(I)	文里道(V). (SSCILLSUCKPOPER PLESMICULADE) 确定 取消
环境安里(0) 确定 取消	确定 取消	

(2) 安装完成后,打开"开始一所有程序一MPICH一wmpiregister.exe",在 Account 中输入本机用户名,在 password 中输入本机密码,点击 Register 按钮注册(注册成功会出现 Password encrypted into the Registry)并按 OK 按钮退出。

Vse this tool to password to be us mpich2 jobs.	encrypt an sed by mpiex	account and ec to launcl	ı
The account provi account available participate in mp	ided must be e on all the pich2 jobs.	a valid us nodes that	er will
Example: mydomain\myaccour myaccount	nt or		
Account:	Adimin	istor	
password	***		-
Click register to Remove to delete current user.	save the c the credent	redentials : ials for the	and
Register R	emove	OK	Cancel
	nto the Reg	istry.	

(注意此处:用户名并非全名而是类似于 Adiministor 的,如要查看用户名采用以下步骤:计算机->管理->本地用户和组->用户->名称。如图所示,红色框内名称为真正的用户名 Account)

法 计算机管理		the state of strange day	
又件(F) 操作(A) 查看(V) #	#助(H)		
• ● ● <th>⊈型</th> <th>描述 管理计算机(线)的内置帐户 供来赛访问计算机或访问域的内</th> <th>操作 用户 更多操作</th>	⊈型	描述 管理计算机(线)的内置帐户 供来赛访问计算机或访问域的内	操作 用户 更多操作

(3) 打开"开始一所有程序-MPICH-wmpiconfig.exe"

main:	Host: sdwm-20140410h;				
WM-20140410HG 👻				-	
1				^ <u>G</u>	et Settings
Get <u>H</u> osts +			1	-	
	Settings	Default	Available options		
Scan Hosts click	priority				
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sta Vausian	🗌 channel				
-201404		sock	nemesis, sock, mt		
201404	<pre>exitcodes</pre>				
		no	yes, no		1
	app_path				1
			path to search		
	version				
	1.4.1p1				
	log				
		no	yes, no		
	delegate				
		no	yes, no		
	sspi_protect				
		no	yes, no		
	internode_channel				
		ssm	nemesis, sock, mt		
	phrase				
	Dehappy				
	logfile				
		none	filename (examp		
	1= .				

选中左侧 Get Hosts 和 Scan for Versions,可得主机和 MPICH2 版本号信息:

nain:	Host: sdwm-20140410h;	g		
				Get Settings
Get <u>R</u> osts	Settings	Default	Available options	
Scan Hosts click	priority			
		2:3	04[:05] idl	
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	1.4.1p1			
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DWM-20140410WC -	1	-			
				🔶 <u>G</u> et Setti	ngs
Get <u>H</u> osts +			1	*	_
	Settings	Default	Available options		_
<u>S</u> can Hosts click	priority				_
		2:3	04[:05] idl		
Scan for Versions	max_logfile_size				
_		unlim	max number of b		
fosts Version	Channel				
DWM-201404 1 4 1p1		sock	nemesis, sock, mt		
	exitcodes				
		no	yes, no		
	app_path				
			path to search		
	version				
	1.4.1p1				
	log				
		no	yes, no		
	delegate				
		no	yes, no		
	sspi_protect				
		no	yes, no		
	internode channel				
		ssm	nemesis, sock, mt		
	D phrase				
	Dehappy				
	lozfile				
		DODO	filonomo (ovomo		

选中并单击右侧 Get Settings 按钮,可见主机和版本信息处变为绿色:

(4) 打开"开始一所有程序-MPICH-wmpiexec.exe",在 Application 中选中 C:\Program
Files\MPICH2\examples 目录下的 mpi.exe 文件,选中 run in an separate window 后单击执行
按钮。

MPIE	XEC wrappe	r			
· App	lication 👖	'C:\Program Fi	iles\MPICH2\examples\cpi.exe″		•
ฟ้ามกา	ber of proc	esses			1 🕂
Exe	ecute	Break	🔽 run in an separate window	Load Job	Save Job
Sho	ow Command	"C:\Progra	m Files\MPICH2\bin\mpiexec.exe″-n	1 -noprompt "C:\Program	Files\MPICH2\e:
C:\W	Vindows\Sys	tem32\cmd.e	exe		
nter i is all c nter	the numbe approxima lock time the numbe	er of inte ately 3.14 e = 0.0000 er of inte	ervals: (O quits) 5 149258640033277, Error is O 121 ervals: (O quits)	.0033332104135346	

(5) 采用命令行验证 MPICH2 安装成功,新建工程并采用 MPHCH2 内的 example

```
pi.f - compute pi by integrating f(x) = 4/(1 + x^{**2})
С
program main
    include 'mpif.h'
    double precision PI25DT
                  (PI25DT = 3.141592653589793238462643d0)
    parameter
    double precision mypi, pi, h, sum, x, f, a
    integer n, myid, numprocs, i, rc
                         function to integrate
с
    f(a) = 4.d0 / (1.d0 + a*a)
    call MPI_INIT( ierr )
    call MPI COMM RANK( MPI COMM WORLD, myid, ierr )
    call MPI_COMM_SIZE( MPI_COMM_WORLD, numprocs, ierr )
    print *, "Process ", myid, " of ", numprocs, " is alive"
    sizetype = 1
    sumtype
             = 2
10
    if ( myid .eq. 0 ) then
      write(6,98)
      format('Enter the number of intervals: (0 quits)')
98
      read(5,99) n
99
      format(i10)
    endif
    call MPI_BCAST(n,1,MPI_INTEGER,0,MPI_COMM_WORLD,ierr)
                         check for quit signal
С
    if ( n .le. 0 ) goto 30
```

```
calculate the interval size
С
     h = 1.0d0/n
     sum = 0.0d0
     do 20 i = myid+1, n, numprocs
        x = h * (dble(i) - 0.5d0)
        sum = sum + f(x)
20
    continue
     mypi = h * sum
                               collect all the partial sums
С
     call MPI_REDUCE(mypi,pi,1,MPI_DOUBLE_PRECISION,MPI_SUM,0,
          MPI_COMM_WORLD,ierr)
    $
                               node 0 prints the answer.
С
     if (myid .eq. 0) then
        write(6, 97) pi, abs(pi - PI25DT)
97
        format(' pi is approximately: ', F18.16,
               ' Error is: ', F18.16)
     endif
     goto 10
    call MPI_FINALIZE(rc)
 30
     stop
     end
```

编译之后,采用命令行运行 mpiexec -n 4 testf,如下图:

	_				🔤 管理员: C:\Windows\system32\cmd.exe
🕞 🖉 📕 🕨 计算机 🕨	OTHERS (F:) + Test05 + TestF + Debu	g 🔹 4 ₇	搜索 Debug	Q	Microsoft Windows [版本 6.1.7601]
文件(F) 编辑(E) 查看(V)	工具(T) 帮助(H)				版权所有 (c) 2009 Microsoft Corporation。保留所有权利。
组织 ▼ 包含到库中 ▼	共享 ▼ 刻录 新建文件夹		ja Ja	• 🛯 🛛	C: VIsers Administrator >F:
A .	名称 1	修改日期	英型	大小	F:\>cd F:\Test85\TestF\Debug
	BuildLog.htm	2014/4/12 22:42	Maxthon Docum	4 KB	
	Source2.obj	2014/4/12 22:42	Object File	6 KB	F:\Test05\TestF\Debug}mpiexec -n 4 testf
	E testf.exe	2014/4/12 22:42	应用程序	872 KB	Process 0 of 4 is alive
10.00	testf.exe.intermediate.manifest	2014/4/12 22:42	MANIFEST 文件	1 KB	Process 2 of 4 is alive
■ 图片	🐏 testf.pdb	2014/4/12 22:42	Program Debug	1,987 KB	Process 1 of 4 is alive
2 文档					Process 3 of 4 is alive
🔒 迅雷下载					Enter the number of intervals: (0 quits)
🡌 音乐 🛛 🗄					y pi is approximately: 3.1426214565576127 Error is: 0.0010288029678196 Enter the number of intervals: (0 guits)
🌉 计算机					0
🏭 本地磁盘 (C:)					
SOFTWARE (D:)					F:\Test05\TestF\Debug>_
Work (E:)					
OTHERS (F)					
Q					
5 个对象					

3、在 Vs2010(C++)中配置 MPICH2

在 VS2010 中, VC++ Directories 配置位置较以往发生了变化。以往的 VS(VS2008 及以前版本) 中, VC++ Directories 位于 Tools-Options 左边的 Projects and Solutions 中。

(1) 而在 VS2010 中, VC++ Directories 改在项目配置,即 Solution Explorer 中,在项目名称上 右键选择 Properties,即进入 Property Pages 窗口。



(2) 展开左边 Configuration Properties,选中其中的 VC++ Directories,在右边 Include Directories 加入 "C:\Program Files\MPICH2\include;"



(3) 展开左边 Configuration Properties,选中其中的 VC++ Directories,在右边 Library Directories 加入 "C:\Program Files\MPICH2\lib;"

onfiguration: Active(Debug)	← Platform: Active(Win32)	✓ Configuration Manager
 Common Properties Configuration Properties General Debugging VC++ Directories C/C++ Linker Manifest Tool XML Document Generat Browse Information Build Events Custom Build Step Code Analysis 	General Executable Directories Include Directories Reference Directories Library Directories Source Directories Exclude Directories	\$(VCInstallDir)bin;\$(WindowsSdkDir)bin\NETFX 4.0 Tools;\$(W C:\Program Files\MPICH2\include;\$(VCInstallDir)include;\$(VCI \$(VCInstallDir)atImfc\ib;\$(VCInstallDir)lib; C:\Program Files\MPICH2\ib; \$(VCInstallDir)atImfc\src\mfc;\$(VCInstallDir)atImfc\src\mfc; \$(VCInstallDir)atImfc\src\mfc;\$(VCInstallDir)atImfc\include;\$(Windows \$(VCInstallDir)include;\$(VCInstallDir)atImfc\include;\$(Windows
	Library Directories Path to use when searching for library file	s while building a VC++ project. Corresponds to environment variable LIB.

(4) 展开左边 Configuration Properties 中的 C/C++,选中其中的 Preprocessor,在右边的 Preprocessor Definitions 中加入 "MPICH_SKIP_MPICXX;"。

onfiguration: Active(Debug)	Platform: Active(Win32)	✓ Configuration Manager
Common Properties	Preprocessor Definitions	WIN32;_DEBUG;MPICH_SKIP_MPICXX;_CONSOLE;%(Prep
Configuration Properties	Undefine Preprocessor Definitions	
General	Undefine All Preprocessor Definitions	No
Debugging	Ignore Standard Include Paths	No
VC++ Directories	Preprocess to a File	No
⊿ C/C++	Preprocess Suppress Line Numbers	No
General	Keep Comments	No
Optimization		
Preprocessor		
Code Generation		
Language		
Precompiled Head		
Output Files		
Browse Informatic		
Advanced		
Command Line		
4 Linker		
General		
Input		
Manifest File		
Debugging		
System		
Optimization		
Embaddad IDI		
Advanced		
Command Line	Preprocessor Definitions	
command tine 🔻	Defines a preprocessing symbols for your so	urce file.

(5) 同样展开 C/C++, 选中 Code Generation, 把右边的 Runtime Library 更改为 "Multi-threaded Debug (/MTd)"(此外有下拉菜单可选到它)。

Active(Debug)	Active(Wins2)	
Common Properties	Enable String Pooling	
Configuration Properties	Enable Minimal Rebuild	Yes (/Gm)
General	Enable C++ Exceptions	Yes (/EHsc)
Debugging	Smaller Type Check	No
VC++ Directories	Basic Runtime Checks	Both (/RTC1, equiv. to /RTCsu) (/RTC1)
4 C/C++	Runtime Library	Multi-threaded Debug (/MTd)
General	Struct Member Alignment	Multi-threaded (/MT)
Optimization	Buffer Security Check	Multi-threaded Debug (/MTd)
Preprocessor	Enable Function-Level Linking	Multi-threaded DLL (/MD)
Code Generation	Enable Enhanced Instruction Set	Multi-threaded Debug DLL (/MDd)
Languaga	Floating Point Model	<inherit defaults="" from="" or="" parent="" project=""></inherit>
	Enable Floating Point Exceptions	
Precomplied Heat	Create Hotpatchable Image	
Output Files		
Browse Informatic		
Advanced		
Command Line		
▲ Linker		
General		
Input		
Manifest File		
Debugging		
System		
Optimization		
Embedded IDL		
Advanced	Runtime Library	
Command Line	Specify runtime library for linking. (/MT_/MT	d (MD (MDd)
	opearly runame norary for innangi (inn, /in	a, /mb, /mba)

(6) 展开左边的 Linker,选中 Input,在右边 Additional Dependencies 中加入"mpi.lib;(注:F并 行需要加入 fmpich2.lib;是用于 Fortran 语言库)"。

onfiguration: Active(Debug)	Platform: Active(Win32)	Configuration Manager
 Common Properties Configuration Properties General Debugging VC++ Directories C/C++ General Optimization Preprocessor Code Generation Language Precompiled Heat Output Files Browse Informatic Advanced Command Line Linker General Input Manifest File Debugging System Optimization 	Additional Dependencies Ignore All Default Libraries Ignore Specific Default Libraries Module Definition File Add Module to Assembly Embed Managed Resource File Force Symbol References Delay Loaded Dlls Assembly Link Resource	mpi.lib;kernel32.lib;user32.lib;gdi32.lib;winspool.lib;com
Advanced Command Line	Additional Dependencies Specifies additional items to add to the link con	mmand line [i.e. kernel32.lib]

```
至此,配置完成。
```

(7) 如何运行 MPI C++程序?

打开"开始一所有程序一MPICH一wmpiexec.exe",在 Applicationd 右边浏览找到你在 VS2010 中 生成的 exe 文件,设置 Number of processes (即进程数目,用来模拟并行计算的 CPU 数目)。再按 Execute 按钮运行。

```
#include "mpi.h"
#include <cstdio>
#include <cstdio>
#include <math.h>
int main(int argc, char* argv[])
{
    int myid,numprocs;
    int namelen;
    char processor_name[MPI_MAX_PROCESSOR_NAME];
    MPI_Init(&argc,&argv);/**//*程序初始化*/
    MPI_Comm_rank(MPI_COMM_WORLD,&myid);/**//*得到当前进程号*/
    MPI_Comm_size(MPI_COMM_WORLD,&numprocs);/**//*得到总的进程数*/
    MPI_Get_processor_name(processor_name,&namelen);/**//*得到机器名*/
    fprintf(stderr," Process %d of %d SAY HELLO TO MPI on %s\n",
    myid, numprocs, processor_name);
```

```
MPI_Finalize();/**//*结 束*/
return 0;
```

```
re
```

```
}
```



Number of proc	resses			4
Execute	Break	🛛 🗖 run in an separate window	Load Job	Save Job
Show Command	"C:\Program	Files\MPICH2\bin\mpiexec.exe" -n 4 -:	noprompt C:\Users\A	dministrator\D
Process 1 of 4 Process 2 of 4 Process 3 of 4	4 SAY HELLO T 4 SAY HELLO T 4 SAY HELLO T 4 SAY HELLO T	0 MPI on SDWM-20140410HG 0 MPI on SDWM-20140410HG 0 MPI on SDWM-20140410HG 0 MPI on SDWM-20140410HG		

4、在 Vs2010(F90)中配置 MPICH2

在 VS2010 里新建 Fortran90 程序项目(MPICH2 安装目录下的 example 目录下有个 fpai.f 的 Fortran 程序可以用来作为算例,但它是 F77 格式的,可以稍做修改即可),在 Fortran 源程序里要添加 include 'mpif.h'语句来包含 MPICH2 的头文件。

(1)将 MPICH2 集成到 VS2010 的集成开发环境中,打开一个 VS2010,点工具->选项,在选项窗口 左边选 Fotran 下的 Compile,并选中 X86 位编译环境(因为这里安装的是 MPICH2 的 32 位版本)

环境	Compiler Selection	
项目和解决方案	Platform:	Selected version of suite/compiler:
源代码管理	Win32	▼ <latest></latest>
文本编辑器		
周试	Selected Compiler:	Intel(R) Visual Fortran Compiler XE 12.0.0.10
IntelliTrace	Intel(R) Visual Fortran	Compiler XE on IA-32, version 12.0.0 Package ID:
	w_fcompxe_2011.0.10	4
ntel(R) Visual Fortran		
General		
Compilers Guided Auto Parallelism	Executables:	\$(IFortInstallDir)bin\ia32;\$(VSInstallDir)Com
# 工具	Libraries:	\$(IFortInstallDir)compiler\lib\ia32:\$(IFortIns
HTML 设计器	cioraneos	
Office 工具	Includes:	\$(IFortInstallDir)compiler\include;\$(IFortInst
Windows 窗体设计器		
Norkflow Designer	Default options:	/Qvc10 /Qlocation,link,"\$(VCInstallDir)\bin"
则试工具		
数据库工具	Reset All	Reset
文本模板化		

(2)添加 MPICH2 库文件,点 Libraries 右边的...,在弹出窗口中添加 MPICH2 库的路径"C:\Program

Files\MPICH2\lib";

\$(IFortInstallDir)compiler\lib\ia32		Compiler Selection	
\$(IFortInstallDir)mkl\lib\ia32		Platform:	Selected version of suite/compiler:
§(VCInstallDır)atlmtc\lıb \$(VCInstallDir)lib		Win32	▼ <latest> ▼</latest>
(WindowsSdkDir)lib		Selected Compiler:	Intel(R) Visual Fortran Compiler XE 12.0.0.104
C:\Program Files\MPICH2\lib		Intel(R) Visual Fortra w_fcompxe_2011.0.1	n Compiler XE on IA-32, version 12.0.0 Package ID: 04
		Executables:	\$(IFortInstallDir)bin\ia32;\$(VSInstallDir)Com
		Libraries:	\$(IFortInstallDir)compiler\lib\ia32;\$(IFortIns
		Includes:	\$(IFortInstallDir)compiler\include;\$(IFortInst
		Default options:	/Qvc10 /Qlocation,link,"\$(VCInstallDir)\bin"
4	-	Reset All	Reset
	Canal		

(3) 添加 MPICH2 头文件,点 Includes 右边的...,在弹出窗口中添加 MPICH2 的包含文件路径

"C:\Program Files\MPICH2\include",每个路径占一行,如图所示。

nodos Ellos mvni = 法证	x		8 23
Set Directory List ([FortInstallDir)compiler\include ([FortInstallDir)compiler\include\ia32 ([FortInstallDir)mklniclude (VCInstallDir)atlmfc\include (VCInstallDir)atlmfc\include (VCInstallDir)include (VMindowsSdkDir)include (FrameworksDKDir)\include Ci\Program Files\MPICH2\include		Compiler Selection Platform: Win32 Selected Compiler: Intel(R) Visual Fortran w_fcompxe_2011.0.10 Executables: Libraries:	Selected version of suite/compiler: <latest></latest> Intel(R) Visual Fortran Compiler XE 12.0.0.104 Compiler XE on IA-32, version 12.0.0 Package ID: 4 \$(IFortInstallDir)bin\ia32;\$(VSInstallDir)Com \$(IFortInstallDir)compiler\lib\ia32;\$(IFortInstallDir)com
٢	OK Cancel	Includes: Default options: Reset All	\$(IFortInstallDir)compiler\include;\$(IFortInst) /Qvc10 /Qlocation,link,"\$(VCInstallDir)\bin"

(4) 添加 MPICH2 可执行文件路径,点 Executables 右边的...,在弹出窗口中添加 MPICH2 的包含文件路径"C:\Program Files\MPICH2\bin",每个路径占一行,如图所示。

C:\Program Files\Inte\\MKL\9.1\ia32\bin C:\Program Files\Microsoft Visual Studio 8\Common7\IDE C:\Program Files\Microsoft Visual Studio 8\Common7\Tools C:\Program Files\Microsoft Visual Studio 8\Common7\Tools C:\Program Files\Microsoft Visual Studio 8\Common7\Tools\bin C:\Program Files\Microsoft Visual Studio 8\Common7\Tools\bin C:\Program Files\Microsoft Visual Studio 8\COMPARTIEND\\bin C:\Program Files\Microsoft Visual Studio 8\COMPARTIEND\\bin C:\Program Files\Microsoft Visual Studio 8\COMPARTIEND\\bin C:\Program Files\Microsoft Visual Studio 8\COMPARTIEND\\bin C:\Program Files\Microsoft Visual Studio 8\COMPARTIEND\\bin C:\Windows\System32\Wbem C:\Windows\System32\Wbem C:\Windows\System32\WindowsPowerShell\V1.0\ C:\Program Files\Microsoft SQL Server\100\Tools\Binn\ C:\Program Files\Microsof	た方葉 こ でのmpiler Selection Target Platform: Selected Compiler: Win32 ・ Intel(R) Fortran Compiler 10.1.014 [IA-32] ・ Executables: \$(IFortInstallDir)Bin;\$(CommonProgramFiles)Untel\SF im Libraries: \$(IFortInstallDir)Lib;\$(VCInstallDir)atImfc\ib;\$(VCInste im) Default options: /Qvc8 /Qlocation,link,*\$(VCInstallDir)atImfc\include; im) Default options: /Qvc8 /Qlocation,link,*\$(VCInstallDir)bin* Reset Reset All 意識
--	---

(5)点 VS2010 项目菜单下的属性,或直接按 Alt+F7 打开项目属性设置窗口,选中 Debug 或 Release

配置。在属性设置窗口左边选 Linker 下的 Input,在右边的 Additional Dependencies 后面输入

fmpich2.lib,确定退出。如图

能宜庸任	Additional Dependencies	fmpich2.lib
General	Ignore All Default Libraries	No
Debugging	Ignore Specific Library	
▷ Fortran	Module Definition File	
⊿ Linker	Add Module to Assembly	
General	Embed Managed Resource File	
Input	Force Symbol References	
Manifest File	Delay Loaded DLLs	
Debugging		
System		
Optimization		
Embedded IDL		
Advanced		
Command Line		
Command Line		
Command Line Resources MIDL		
Command Line Resources MIDL Manifest Tool		
Command Line Resources MIDL Manifest Tool Build Events		
Command Line Resources MIDL Manifest Tool Build Events Custom Build Step		
Command Line Resources MIDL Manifest Tool Build Events Custom Build Step 		
Command Line Resources MIDL Manifest Tool Build Events Custom Build Step 		
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Command Line Resources MIDL Manifest Tool Build Events Custom Build Step 	Additional Dependencies	

(6)编译该程序,然后打开"开始一所有程序一MPICH一wmpiexec.exe",在 Applicationd 右边 浏览找到你在 VS2010 中生成的 F 语言 exe 文件,设置 Number of processes (即进程数目,用来模拟 并行计算的 CPU 数目)。再按 Execute 按钮运行。

Application	C:\Users\Administ:	rator\Desktop\MPIFTest\MPIFTest\De	ebug\MPIFTest.exe	
Number of proc	esses			6 ÷
Execute	Break	🗸 run in an separate window	Load Job	Save Job
Show Command	"C:\Program Fi	les\MPICH2\bin\mpiexec.exe″ -n 6	-noprompt C:\Users\A	dministrator\Desl
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1				
C:\Windows\Svs	tem32\cmd.exe			
C:\Windows\Sys	tem32\cmd.exe			
C:\Windows\Sys	tem32\cmd.exe 2 of	6 is alive		
C:\Windows\Sys Process Process	tem32\cmd.exe 2 of 3 of	6 is alive 6 is alive		
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C:\Windows\Sys Process Process Process Process Process Process nter the number pi is approx:	tem32\cmd.exe 2 of 3 of 5 of 4 of 1 of Ø of er of interval imately: 3.142	6 is alive 6 is alive 6 is alive 6 is alive 6 is alive 6 is alive 1s: (0 quits) 26214565576123 Error is:	0.0010288029678	192
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MPICH 配置之后如果使用 wmpiexec.exe 打开界面使用可以并行,但是使用命令行时出现问题, 主要原因:

1 未关闭防火墙和杀毒软件,关闭即可;如使用 360,请直接卸载

2 mpiexec -n 4 test.exe

win7 系统,单机运行

报错如下:

Error while connecting to host,由于目标计算机积极拒绝,无法连接。(10061)

Connect on sock (host=user-laptop, port=8676) failed, exhaused all end points

Unable to connect to 'user-laptop:8676',

```
sock error: Error = -1
```

出现上述错误时,可以采用以下方案解决(1)原因是服务"MPICH2 Process Manager, Argonne National Lab"没有启动。所以打开服务 运行->services.msc->点击 MPICH2 Process Manager, Argonne National Lab),令其启动,即可。(2)win7管理员权限的问题,以管理员身份运行一个控制台(在"命令窗口"图标上点右键选"以管理员身份运行")smpd.exe - install。重新安装之后即可(我采用这个成功了)

3 出现 Aborting: Unable to connected to the host ******, smpd version dismatch 此时在命令行输入: smpd - version 查看当前安装的 MPICH 版本是否显示与你安装一致。 在 c 盘搜索 mpiexec. exe 和 smpd. exe,此时可能发现很多个主要是自己安装 Intel 编译器时会自己产 生一些,导致版本不一样。只需要把不是 MPICH2 目录底下的删掉即可,重新运行即可。