

# Lab Assignment -11

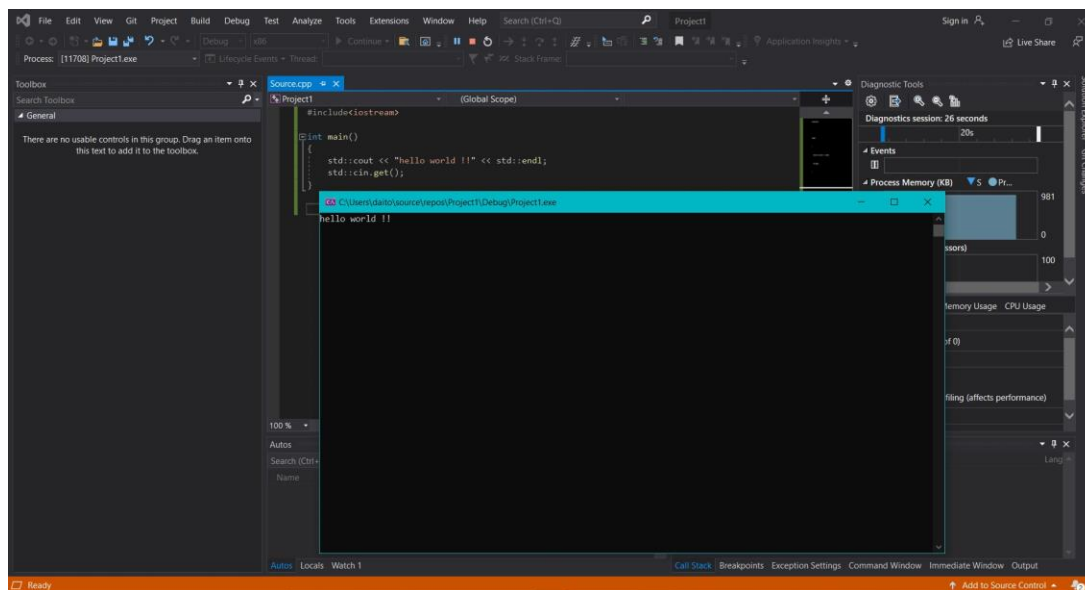
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Slot : L39-40

Subject Code : CSE2010

Download and install visual studio (recent edition)Write a C++ code of your own to build an executable and run the same.



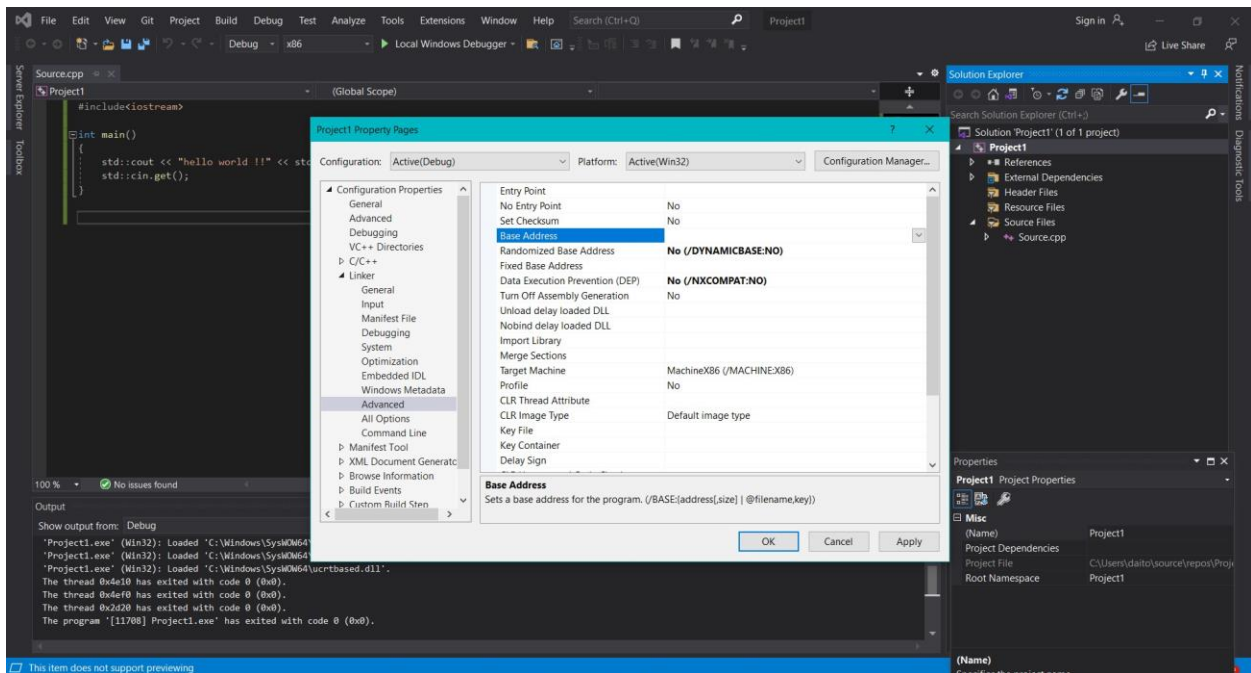
Download process explorer and verify the DEP & ASLR status

The screenshot shows the Process Explorer window from Sysinternals. The table below lists the processes and their DEP & ASLR status.

Process	CPU	Private Bytes	Working Set	PID	Description	Company Name	DEP	ASLR
Microsoft.ServiceHub Contr...		38,512 K	36,868 K	13844	Microsoft.ServiceHub Control...	Microsoft	Enabled (permanent)	ASLR
ServiceHub.IdentityHost.exe	< 0.01	40,972 K	41,228 K	3848	ServiceHub.IdentityHost.exe	Microsoft	Enabled (permanent)	ASLR
ServiceHub.VSDetoured...		69,736 K	48,308 K	13204	ServiceHub.VSDetouredHos...	Microsoft	Enabled (permanent)	ASLR
ServiceHub.SettingsHos...		66,596 K	47,316 K	11120	ServiceHub.SettingsHost.exe	Microsoft	Enabled (permanent)	ASLR
ServiceHub.Host.CLR.x8...		46,956 K	36,740 K	8556	ServiceHub.Host.CLR.x86	Microsoft	Enabled (permanent)	ASLR
ServiceHub.ThreadedW...	< 0.01	73,968 K	51,088 K	8696	ServiceHub.ThreadedWaitDi...	Microsoft	Enabled (permanent)	ASLR
ServiceHub.Host.CLR.x6...		568,716 K	530,588 K	11676	ServiceHub.Host.CLR.x64	Microsoft	Enabled (permanent)	ASLR
ServiceHub.DataWareh...	0.51	83,112 K	87,320 K	12912	ServiceHub.DataWarehouse...	Microsoft	Enabled (permanent)	ASLR
ServiceHub.Host.CLR.x8...		106,792 K	79,700 K	20288	ServiceHub.Host.CLR.x86	Microsoft	Enabled (permanent)	ASLR
ServiceHub.TestWindo...		59,644 K	73,768 K	16048	ServiceHub.TestWindowStor...	Microsoft	Enabled (permanent)	ASLR
MSBuild.exe		23,200 K	37,124 K	13816	MSBuild.exe	Microsoft Corporation	Enabled (permanent)	ASLR
conhost.exe		6,340 K	5,244 K	256	Console Window Host	Microsoft Corporation	Enabled (permanent)	ASLR
vcpgsrv.exe	< 0.01	14,344 K	18,296 K	14324	Microsoft (R) Visual C++ Pack...	Microsoft Corporation	Enabled (permanent)	ASLR
vcpgsrv.exe	< 0.01	49,468 K	21,232 K	19540	Microsoft (R) Visual C++ Pack...	Microsoft Corporation	Enabled (permanent)	ASLR
VsDebugConsole.exe		1,140 K	6,152 K	18704	Visual Studio Debugger Con...	Microsoft Corporation	Enabled (permanent)	ASLR
conhost.exe		7,008 K	15,864 K	4876	Console Window Host	Microsoft Corporation	Enabled (permanent)	ASLR
Project1.exe		752 K	4,060 K	11708			Enabled (permanent)	ASLR
msvsm.exe		5,208 K	14,748 K	20396	Visual Studio 2019 Remote D...	Microsoft Corporation	Enabled (permanent)	ASLR
ScriptedSandbox64.exe	2.53	107,616 K	138,392 K	14888	ScriptedSandbox64.exe	Microsoft Corporation	Enabled (permanent)	ASLR
SnippingTool.exe	1.35	17,732 K	64,724 K	14344	Snipping Tool	Microsoft Corporation	Enabled (permanent)	ASLR
procexp.exe		4,980 K	11,524 K	20592	Sysinternals Process Explorer	Sysinternals - www.sysinter...	Enabled (permanent)	ASLR
procexp64.exe	1.85	40,696 K	65,504 K	20652	Sysinternals Process Explorer	Sysinternals - www.sysinter...	Enabled (permanent)	ASLR
NVIDIA Web Helper.exe	< 0.01	37,140 K	15,220 K	16680	NVIDIA Web Helper Service	Node.js	Enabled (permanent)	ASLR
conhost.exe		6,340 K	888 K	17128	Console Window Host	Microsoft Corporation	Enabled (permanent)	ASLR
PSAgent.exe		1,696 K	1,656 K	16804			Enabled (permanent)	n/a
firefox.exe	< 0.01	232,432 K	178,032 K	9648	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe		246,852 K	61,848 K	4424	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe		54,524 K	29,620 K	19372	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe	< 0.01	38,640 K	30,296 K	14752	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR

CPU Usage: 19.05% Commit Charge: 65.32% Processes: 251 Physical Usage: 92.91%

Disable software DEP, ASLR and SEH in the visual studio and rebuild the sameexecutableProject > properties > configuration properties > linker



By Default, in project properties, DEP and ASLR properties are enabled and even upon disabling them can see the changes to DEP and ASLR.

Process	CPU	Private Bytes	Working Set	PID	Description	Company Name	DEP	ASLR
ServiceHub.Host.CLR.x86...		107,432 K	79,700 K	20288	ServiceHub.Host.CLR.x86	Microsoft	Enabled (permanent)	ASLR
ServiceHub.TestWindowStor...		59,776 K	73,624 K	16048	ServiceHub.TestWindowStor...	Microsoft	Enabled (permanent)	ASLR
MSBuild.exe	0.17	25,356 K	38,936 K	13816	MSBuild.exe	Microsoft Corporation	Enabled (permanent)	ASLR
conhost.exe		6,340 K	5,048 K	256	Console Window Host	Microsoft Corporation	Enabled (permanent)	ASLR
vcpgkgsrv.exe	< 0.01	14,344 K	17,972 K	14324	Microsoft (R) Visual C++ Pack...	Microsoft Corporation	Enabled (permanent)	ASLR
vcpgkgsrv.exe	< 0.01	43,108 K	18,004 K	20476	Microsoft (R) Visual C++ Pack...	Microsoft Corporation	Enabled (permanent)	ASLR
VsDebugConsole.exe		1,332 K	5,032 K	18804	Visual Studio Debugger Con...	Microsoft Corporation	Enabled (permanent)	ASLR
conhost.exe		7,092 K	16,092 K	21296	Console Window Host	Microsoft Corporation	Enabled (permanent)	ASLR
Project1.exe		824 K	3,984 K	12752			Disabled (permanent)	
msvsmon.exe		5,332 K	15,148 K	17840	Visual Studio 2019 Remote D...	Microsoft Corporation	Enabled (permanent)	ASLR
ScriptedSandbox64.exe	0.50	88,596 K	119,288 K	21400	ScriptedSandbox64.exe	Microsoft Corporation	Enabled (permanent)	ASLR
SnippingTool.exe	1.00	18,660 K	53,848 K	14344	Snipping Tool	Microsoft Corporation	Enabled (permanent)	ASLR
procexp.exe		4,980 K	11,012 K	20592	Sysinternals Process Explorer	Sysinternals - www.sysinter...	Enabled (permanent)	ASLR
procexp64.exe	2.17	40,592 K	65,312 K	20652	Sysinternals Process Explorer	Sysinternals - www.sysinter...	Enabled (permanent)	ASLR
NVIDIA Web Helper.exe	< 0.01	37,072 K	2,320 K	16680	NVIDIA Web Helper Service	Node.js	Enabled (permanent)	ASLR
conhost.exe		6,340 K	604 K	17128	Console Window Host	Microsoft Corporation	Enabled (permanent)	ASLR
PSAgent.exe		1,696 K	1,656 K	16804			Enabled (permanent)	n/a
firefox.exe	< 0.01	234,152 K	172,660 K	9648	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe		346,268 K	55,900 K	4424	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe		57,384 K	31,356 K	19372	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe	< 0.01	38,708 K	24,496 K	14752	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe		50,476 K	38,116 K	11540	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe	< 0.01	250,716 K	144,600 K	17028	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe		33,812 K	12,048 K	6492	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe	< 0.01	256,840 K	146,776 K	1308	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe	< 0.01	207,632 K	134,320 K	15396	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe		61,340 K	33,292 K	1824	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe		151,748 K	104,920 K	11376	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR
firefox.exe		47,492 K	44,060 K	5996	Firefox	Mozilla Corporation	Enabled (permanent)	ASLR

CPU Usage: 15.70% Commit Charge: 67.82% Processes: 251 Physical Usage: 94.53%