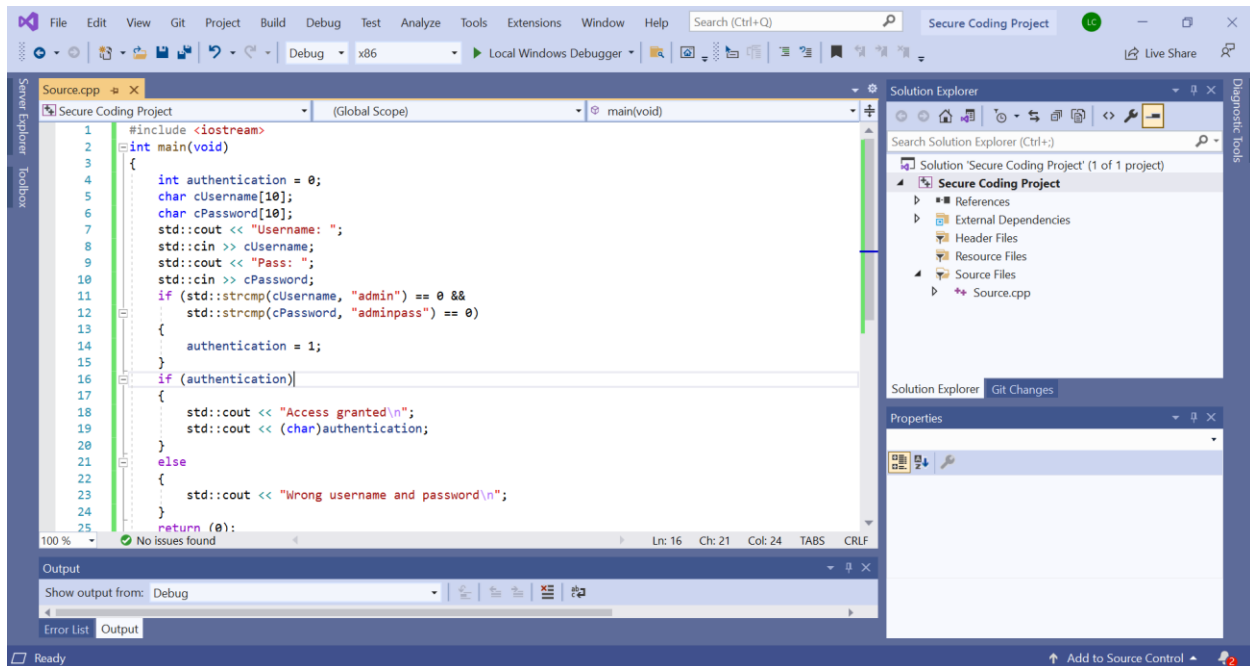


Name: Devi Jagannadh Kotha

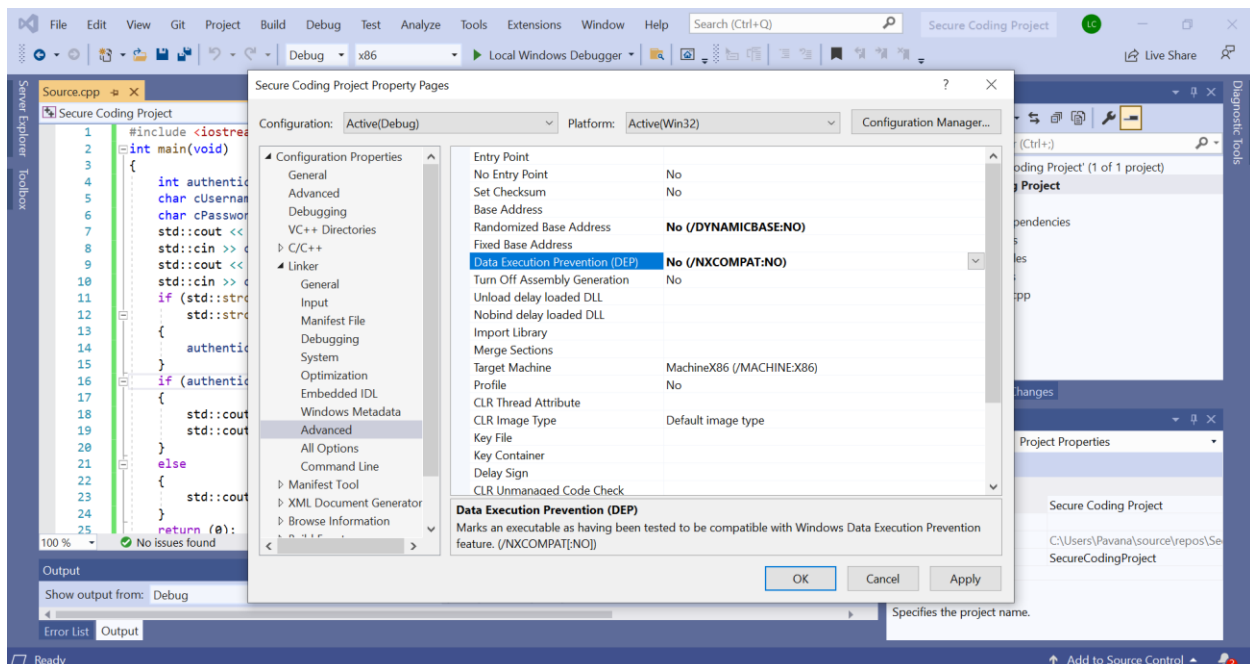
Reg no.: 18BCN7079

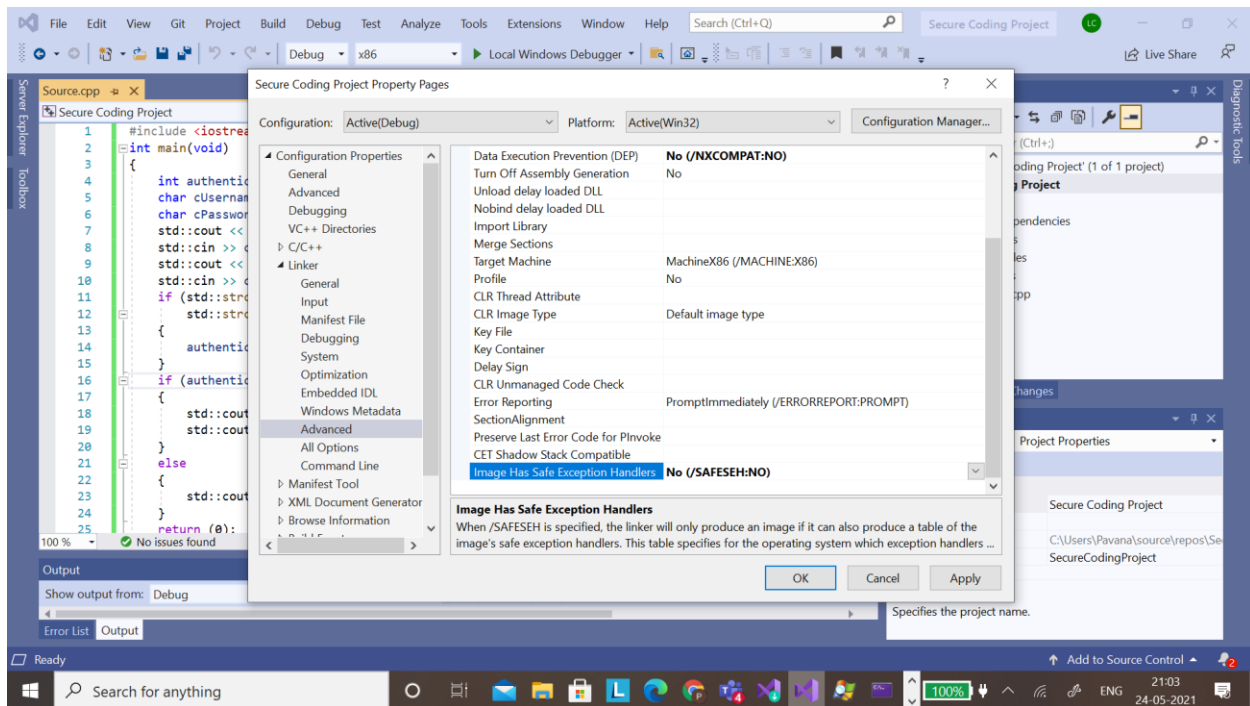
Slot: L39+40

Building an executable code.



Disable DEP, ASLR and SEH





Install process Explorer

Process Explorer - Sysinternals: www.sysinternals.com [DESKTOP-U6VV86T\Pavana] (Administrator)

File Options View Process Find Users Help

Process	CPU	Private Bytes	Working Set	PID	Description	Company Name	DEP
Interrupts	0.53	0 K	0 K	n/a	Hardware Interrupts and DPCs	Microsoft Corporation	Enabled
smss.exe		1,072 K	468 K	592	Windows Session Manager	Microsoft Corporation	Enabled
Memory Compression	0.67	1,020 K	36,932 K	2856		Microsoft Corporation	Enabled
csrss.exe	< 0.01	2,264 K	3,240 K	760	Client Server Runtime Process	Microsoft Corporation	Enabled
wininit.exe		1,824 K	3,488 K	860	Windows Start-Up Application	Microsoft Corporation	Enabled
services.exe	< 0.01	7,980 K	9,216 K	936	Services and Controller app	Microsoft Corporation	Enabled
svchost.exe	0.12	25,976 K	34,832 K	644	Host Process for Windows S...	Microsoft Corporation	Enabled
dllhost.exe		3,752 K	5,564 K	19052	COM Surrogate	Microsoft Corporation	Enabled
TiWorker.exe		35,184 K	21,772 K	2116	Windows Modules Installer W...	Microsoft Corporation	Enabled
fodhelper.exe		1,408 K	2,244 K	9052	Features On Demand Helper	Microsoft Corporation	Enabled
WmiPrvSE.exe		3,900 K	7,996 K	17988	WMI Provider Host	Microsoft Corporation	Enabled
MoUsoCoreWorker.exe		14,108 K	19,260 K	15428	MoUSO Core Worker Process	Microsoft Corporation	Enabled
McVulCtr.exe		8,728 K	4,732 K	22492	McAfee Vulnerability Scanner	McAfee, LLC	Enabled
StartMenuExperienceHos...		27,564 K	76,648 K	1892		Microsoft Corporation	Enabled
RuntimeBroker.exe		6,688 K	25,852 K	8284	Runtime Broker	Microsoft Corporation	Enabled
SearchApp.exe		2,07,364 K	2,60,256 K	11268	Search application	Microsoft Corporation	Enabled
SettingSyncHost.exe	< 0.01	11,088 K	31,800 K	23436	Host Process for Setting Syn...	Microsoft Corporation	Enabled
RuntimeBroker.exe		12,940 K	39,656 K	8700	Runtime Broker	Microsoft Corporation	Enabled
YourPhone.exe	Susp...	25,848 K	18,516 K	15972	YourPhone	Microsoft Corporation	Enabled
LockApp.exe	Susp...	13,732 K	46,328 K	16412	LockApp.exe	Microsoft Corporation	Enabled
RuntimeBroker.exe		10,608 K	35,868 K	9888	Runtime Broker	Microsoft Corporation	Enabled
TextInputHost.exe		13,044 K	45,464 K	16860		Microsoft Corporation	Enabled
RuntimeBroker.exe	< 0.01	3,024 K	15,160 K	10628	Runtime Broker	Microsoft Corporation	Enabled
dllhost.exe	0.02	6,624 K	14,396 K	18368	COM Surrogate	Microsoft Corporation	Enabled
RuntimeBroker.exe		7,016 K	25,232 K	20968	Runtime Broker	Microsoft Corporation	Enabled
Cortana.exe	Susp...	31,240 K	58,984 K	19732	Cortana	Microsoft Corporation	Enabled
RuntimeBroker.exe		4,616 K	22,744 K	15980	Runtime Broker	Microsoft Corporation	Enabled
ApplicationFrameHost.exe		24,468 K	40,752 K	3696	Application Frame Host	Microsoft Corporation	Enabled
WinStore.App.exe	Susp...	18,764 K	2,332 K	2124	Store	Microsoft Corporation	Enabled
RuntimeBroker.exe							

CPU Usage: 11.57% Commit Charge: 83.12% Processes: 285 Physical Usage: 92.16%

Enabling DEP and ASLR in process explorer.

Select Columns

Process Network

Process GPU

Process Image

Process Disk

Handle

Process Performance

Process Memory

NET

Status Bar

Process I/O

Select the columns that will appear on the Process view of Process Explorer.

☒ Process Name

☐ Window Title

☒ PID (Process Identifier)

☐ Window Status

☐ User Name

☐ Session

☒ Description

☐ Command Line

☒ Company Name

☐ Comment

☐ Verified Signer

☐ Autostart Location

☐ Version

☐ VirusTotal

☐ Image Path

☒ DEP Status

☐ Image Type (64 vs 32-bit)

☐ Integrity Level

☐ Package Name

☐ Virtualized

☐ DPI Awareness

☒ ASLR Enabled

☐ Protection

☐ UI Access

☐ Control Flow Guard

☐ Enterprise Context

OK

Cancel

U6VV86T\pavana [Administrator]

Working Set

PID

Description

Company Name

DEP

ASLR

49,060 K	13080	Flow	Conexant Systems, Inc	Enabled (permane...	ASLR	
30,128 K	19300	McAfee	McAfee, LLC	Enabled (permane...	ASLR	
1,254,844 K	16808	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR	
1,443,324 K	9200	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR	
42,628 K	16604	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR	
38,112 K	18152	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR	
3,027,444 K	17668	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR	
54,584 K	16304	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR	
2,087,448 K	7316	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR	
1,57,612 K	10292	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR	
76,352 K	13288	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR	
1,67,384 K	22212	Visual Studio Installer	Microsoft	Enabled (permane...	ASLR	
3,77,192 K	5516	Microsoft Visual Studio 2019	Microsoft Corporation	Enabled (permane...	ASLR	
56,176 K	12788	PerfWatson2.exe	Microsoft Corporation	Enabled (permane...	ASLR	
50,856 K	9408	Microsoft ServiceHub Control...	Microsoft	Enabled (permane...	ASLR	
67,888 K	19872	ServiceHub VSDetouredHost...	Microsoft	Enabled (permane...	ASLR	
61,824 K	21964	ServiceHub ThreadedWaitDi...	Microsoft	Enabled (permane...	ASLR	
58,284 K	4928	ServiceHub IdentityHost.exe	Microsoft	Enabled (permane...	ASLR	
66,576 K	17308	ServiceHub SettingsHost.exe	Microsoft	Enabled (permane...	ASLR	
49,108 K	16708	ServiceHub Host CLR x86	Microsoft	Enabled (permane...	ASLR	
95,284 K	19060	ServiceHub DataWarehouse...	Microsoft	Enabled (permane...	ASLR	
79,276 K	15120	ServiceHub Host CLR x86	Microsoft	Enabled (permane...	ASLR	
70,248 K	7600	ServiceHub TestWindowStor...	Microsoft	Enabled (permane...	ASLR	
52,148 K	17084	MSBuild.exe	Microsoft Corporation	Enabled (permane...	ASLR	
5,300 K	15912	Console Window Host	Microsoft Corporation	Enabled (permane...	ASLR	
16,824 K	23392	Microsoft (R) Visual C++ Pac...	Microsoft Corporation	Enabled (permane...		
19,616 K	22312	Microsoft (R) Visual C++ Pac...	Microsoft Corporation	Enabled (permane...		
5,982 K	24696	Visual Studio Debugger Cons...	Microsoft Corporation	Enabled (permane...	ASLR	
16,504 K	23544	Console Window Host	Microsoft Corporation	Enabled (permane...	ASLR	
696 K	4,372 K	24280		Disabled (permane...		
9,712 K	19,640 K	21592 Visual Studio 2019 Remote ...	Microsoft Corporation	Enabled (permane...	ASLR	
0.87	95,560 K	24,768 ScriptedSandbox64.exe	Microsoft Corporation	Enabled (permane...	ASLR	
0.88	50,460 K	20,980 Sysinternals Process Explorer	Sysinternals - www.sysinter...	Enabled (permane...	ASLR	
	16,132 K	17,492 K	17288 Microsoft® Program Database	Microsoft Corporation	Enabled (permane...	ASLR

CPU Usage: 6.69% Commit Charge: 80.64% Processes: 276 Physical Usage: 84.69%

DEP Status of Secure Coding Project.exe shows disabled.

Process Explorer - Sysinternals: www.sysinternals.com [DESKTOP-U6VV86T\pavana] (Administrator)

File

Options View

Process

Find

Users

Help

Process

CPU

Private Bytes

Working Set

PID

Description

Company Name

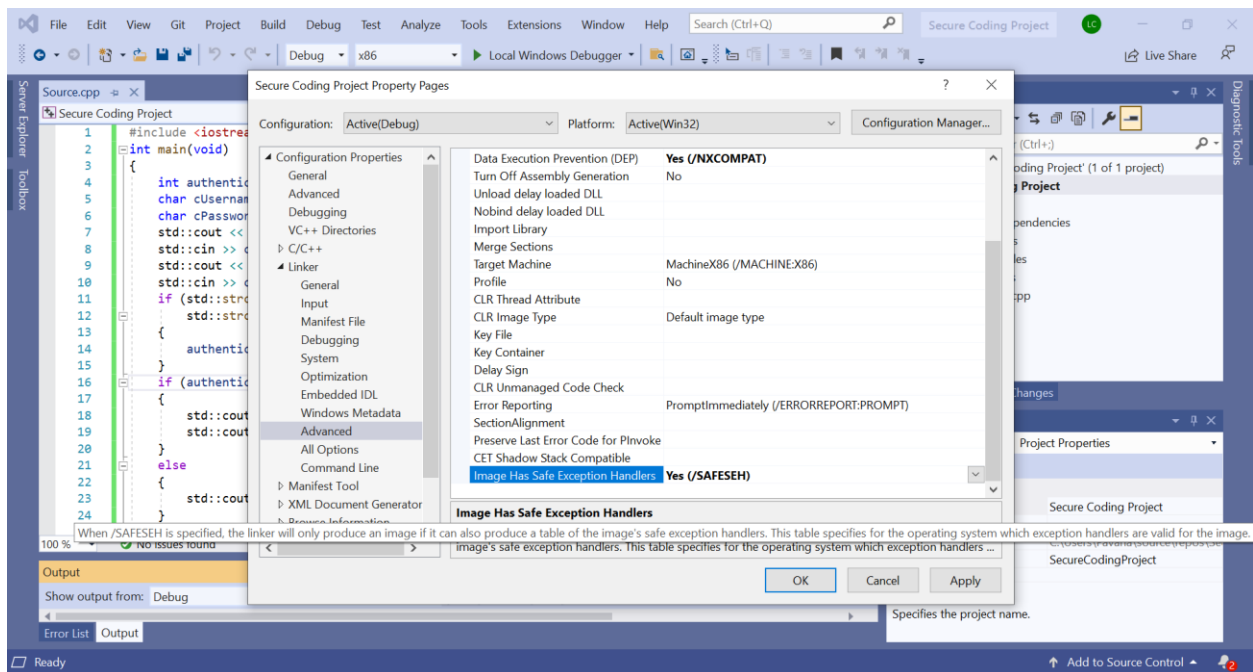
DEP

ASLR

Flow.exe	0.01	58,824 K	49,044 K	13080	Flow	Conexant Systems, Inc	Enabled (permane...	ASLR
McUICnt.exe		10,252 K	30,128 K	19300	McAfee	McAfee, LLC	Enabled (permane...	ASLR
Teams.exe	0.01	1,79,640 K	1,26,352 K	16808	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe	0.29	1,87,052 K	1,44,324 K	9200	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe	0.01	16,056 K	42,628 K	16604	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe		33,364 K	38,112 K	18152	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe	0.32	3,22,528 K	2,78,260 K	17668	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe		11,588 K	54,604 K	16304	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe		2,04,252 K	2,08,768 K	7316	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe		1,36,880 K	1,57,612 K	10292	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe		23,168 K	76,368 K	13288	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
setup.exe	0.92	1,61,476 K	1,67,384 K	22212	Visual Studio Installer	Microsoft	Enabled (permane...	ASLR
devenv.exe	1.25	3,07,028 K	3,77,996 K	5516	Microsoft Visual Studio 2019	Microsoft Corporation	Enabled (permane...	ASLR
PerfWatson2.exe	+ 0.01	48,336 K	56,212 K	12788	PerfWatson2.exe	Microsoft Corporation	Enabled (permane...	ASLR
Microsoft ServiceHub Control...		39,472 K	50,856 K	9408	Microsoft ServiceHub Control...	Microsoft	Enabled (permane...	ASLR
ServiceHub VSDetouredHo...		65,016 K	67,888 K	19872	ServiceHub VSDetouredHost...	Microsoft	Enabled (permane...	ASLR
ServiceHub ThreadedWaitDi...		63,632 K	61,824 K	21964	ServiceHub ThreadedWaitDi...	Microsoft	Enabled (permane...	ASLR
ServiceHub IdentityHost.exe	0.01	54,340 K	58,284 K	4928	ServiceHub IdentityHost.exe	Microsoft	Enabled (permane...	ASLR
ServiceHub SettingsHost.exe		71,396 K	66,572 K	17308	ServiceHub SettingsHost.exe	Microsoft	Enabled (permane...	ASLR
ServiceHub Host CLR x86.exe		47,948 K	49,108 K	16708	ServiceHub Host CLR x86	Microsoft	Enabled (permane...	ASLR
ServiceHub DataWarehous...	0.28	89,840 K	94,744 K	19060	ServiceHub DataWarehouse...	Microsoft	Enabled (permane...	ASLR
ServiceHub Host CLR x86.exe		78,404 K	79,132 K	15120	ServiceHub Host CLR x86	Microsoft	Enabled (permane...	ASLR
ServiceHub TestWindowSto...		59,424 K	70,060 K	7600	ServiceHub TestWindowStor...	Microsoft	Enabled (permane...	ASLR
MSBuild.exe		30,904 K	52,148 K	17084	MSBuild.exe	Microsoft Corporation	Enabled (permane...	ASLR
conhost.exe		6,324 K	5,300 K	15912	Console Window Host	Microsoft Corporation	Enabled (permane...	ASLR
vcpgkgrv.exe	< 0.01	13,684 K	16,824 K	23392	Microsoft (R) Visual C++ Pac...	Microsoft Corporation	Enabled (permane...	
vcpgkgrv.exe	< 0.01	43,956 K	19,616 K	22312	Microsoft (R) Visual C++ Pac...	Microsoft Corporation	Enabled (permane...	
VsDebugConsole.exe		1,132 K	5,982 K	24696	Visual Studio Debugger Cons...	Microsoft Corporation	Enabled (permane...	ASLR
conhost.exe		7,076 K	16,504 K	23544	Console Window Host	Microsoft Corporation	Enabled (permane...	ASLR
Secure Coding Project.exe		696 K	4,372 K	24280			Disabled (permane...	
msvsmon.exe		9,712 K	19,640 K	21592	Visual Studio 2019 Remote ...	Microsoft Corporation	Enabled (permane...	ASLR
ScriptedSandbox64.exe	0.97	95,560 K	1,24,272 K	24,768	ScriptedSandbox64.exe	Microsoft Corporation	Enabled (permane...	ASLR
procxp64.exe	0.78	50,440 K	68,492 K	20,980	Sysinternals Process Explorer	Sysinternals - www.sysinter...	Enabled (permane...	ASLR
mspdbsvr.exe		16,132 K	17,492 K	17,492	17288 Microsoft® Program Database	Microsoft Corporation	Enabled (permane...	ASLR

CPU Usage: 6.10% Commit Charge: 80.59% Processes: 276 Physical Usage: 84.80%

Now enable DEP, ASLR and SEH in Visual Studio.



Now, the DEP status of Secure Coding Project.exe shows enabled.

Process Explorer - Sysinternals: www.sysinternals.com [DESKTOP-U6VV86T\Pavana] (Administrator)

Process	CPU	Private Bytes	Working Set	PID	Description	Company Name	DEP	ASLR
WINWORD.EXE	0.08	1,31,052 K	1,86,400 K	22912	Microsoft Word	Microsoft Corporation	Enabled (permane...	ASLR
C:\AudioFilterAgent64.exe		1,952 K	9,804 K	20844	Conexant High Definition Aud...	Conexant Systems, Inc.	Enabled (permane...	ASLR
SmartAudio3.exe	< 0.01	56,468 K	48,320 K	15136	SmartAudio 3	Conexant Systems LLC.	Enabled (permane...	ASLR
Cnxtnotify.exe		34,200 K	35,944 K	5796	Cnxtnotify	Conexant Systems, Inc	Enabled (permane...	ASLR
Flow.exe	0.01	58,620 K	49,052 K	13080	Flow	Conexant Systems, Inc	Enabled (permane...	ASLR
McAfee.exe		10,252 K	30,128 K	19300	McAfee	McAfee, LLC	Enabled (permane...	ASLR
Teams.exe	0.02	1,79,344 K	1,26,280 K	16908	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe	0.25	1,83,580 K	1,41,000 K	9200	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe	0.01	16,020 K	42,612 K	16604	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe		33,364 K	38,112 K	18152	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe	0.29	3,22,544 K	2,78,268 K	17668	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe		11,496 K	54,552 K	16304	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe	< 0.01	2,03,020 K	2,08,368 K	7316	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
Teams.exe	< 0.01	1,36,692 K	1,57,528 K	10292	Microsoft Teams	Microsoft Corporation	Enabled (permane...	ASLR
setup.exe	0.85	1,61,516 K	1,67,416 K	22212	Visual Studio Installer	Microsoft	Enabled (permane...	ASLR
devcm.exe	1.08	3,13,880 K	3,83,588 K	5516	Microsoft Visual Studio 2019	Microsoft Corporation	Enabled (permane...	ASLR
PerfWatson2.exe	< 0.01	47,840 K	56,040 K	12788	PerfWatson2.exe	Microsoft Corporation	Enabled (permane...	ASLR
Microsoft ServiceHub Controlle...		39,572 K	51,288 K	9408	Microsoft ServiceHub Controlle...	Microsoft	Enabled (permane...	ASLR
ServiceHub.VSDetouredHost...		65,096 K	68,368 K	19872	ServiceHub.VSDetouredHost...	Microsoft	Enabled (permane...	ASLR
ServiceHub.ThreadedWaitDi...		63,708 K	61,852 K	21964	ServiceHub.ThreadedWaitDi...	Microsoft	Enabled (permane...	ASLR
ServiceHub.IdentityHost.exe	0.01	54,088 K	58,908 K	4928	ServiceHub.IdentityHost.exe	Microsoft	Enabled (permane...	ASLR
ServiceHub.SettingsHost.exe		71,144 K	67,164 K	17308	ServiceHub.SettingsHost.exe	Microsoft	Enabled (permane...	ASLR
ServiceHub.Host.CLR.x86.exe		48,252 K	49,244 K	16708	ServiceHub.Host.CLR.x86	Microsoft	Enabled (permane...	ASLR
ServiceHub.DataWarehouse...	0.53	92,744 K	97,208 K	19060	ServiceHub.DataWarehouse...	Microsoft	Enabled (permane...	ASLR
ServiceHub.Host.CLR.x86.exe	< 0.01	78,556 K	79,544 K	15120	ServiceHub.Host.CLR.x86	Microsoft	Enabled (permane...	ASLR
ServiceHub.TestWindowSto...		59,536 K	70,172 K	7600	ServiceHub.TestWindowSto...	Microsoft	Enabled (permane...	ASLR
MSBuild.exe		34,164 K	55,272 K	17084	MSBuild.exe	Microsoft Corporation	Enabled (permane...	ASLR
conhost.exe		6,324 K	5,300 K	15912	Console Window Host	Microsoft Corporation	Enabled (permane...	ASLR
vcpgkgrv.exe	< 0.01	13,684 K	16,824 K	23392	Microsoft (R) Visual C++ Pac...	Microsoft Corporation	Enabled (permane...	ASLR
VsDebugConsole.exe		1,208 K	6,044 K	24696	Visual Studio Debugger Cons...	Microsoft Corporation	Enabled (permane...	ASLR
conhost.exe		7,044 K	16,528 K	23544	Console Window Host	Microsoft Corporation	Enabled (permane...	ASLR
Secure Coding Project.exe		784 K	4,416 K	21480		Microsoft Corporation	Enabled (permane...	ASLR
vcpgkgrv.exe	< 0.01	43,108 K	16,588 K	21076	Microsoft (R) Visual C++ Pac...	Microsoft Corporation	Enabled (permane...	ASLR
msvsmn.exe		9,812 K	19,724 K	26124	Visual Studio 2019 Remote ...	Microsoft Corporation	Enabled (permane...	ASLR
ScriptedSandbox64.exe	1.15	94,332 K	1,22,972 K	23568	ScriptedSandbox64.exe	Microsoft Corporation	Enabled (permane...	ASLR
procexp64.exe	0.77	50,440 K	68,512 K	20980	Sysinternals Process Explorer	Sysinternals - www.sysinter...	Enabled (permane...	ASLR

CPU Usage: 6.25% Commit Charge: 83.02% Processes: 275 Physical Usage: 88.95%

By executing the code at the end, console opens up.

