



APM Tool Configuration with VSP

For .NET

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About this Document

This document provides the procedure to configure APM (Application Performance Monitoring) tool with VSP for .NET simultaneously. The supported APM Tools are:

1. AppDynamics (**Version 21.11.0**)
2. New Relic (**Agent version 9.7.1**)

1.AppDynamics Configuration

AppDynamics is an application performance monitoring tool that captures the performance metrics of applications.

AppDynamics .Net Agent is the component that is used to instrument .NET process and capture the metrics from .NET based applications.

By default, both VSP and AppDynamics use the same environment variables listed in Table 1. Follow the steps mentioned in the following sections to overcome this.

VSP	AppDynamics
<pre> COR_ENABLE_PROFILING=1 COR_PROFILER={8E2B38F2-7355-4C61-A54F-434B7AC266C0} COR_PROFILER_PATH_64=C:\Program Files (x86)\Virsec\iae-dnet\bin\dotnetprofiler.dll </pre>	<pre> COR_ENABLE_PROFILING=1 COR_PROFILER=AppDynamics.AgentProfiler COR_PROFILER_PATH_64=C:\Program Files\AppDynamics\AppDynamics.NET\AppDynamics.Profiler_x64.dll </pre>

Table 1 – VSP vs AppDynamics

1.1.Configuration on .NET Application

Follow the below steps:

1. Install VSP Probe
2. Install App Dynamic Agent by following the below article:
<https://docs.appdynamics.com/21.4/en/application-monitoring/install-app-server-agents/net-agent/install-the-net-agent-for-windows>

- After installation, remove the below system-level environmental variables. These environmental variables are configured by AppDynamics Installer


NOTE:

Make a note of the deleted system-level environmental variables and their values. If VSP is un-installed, these variables need to be added again for AppDynamics to function as expected

Variable	Value
COMPLUS_ProfAPI_ProfilerCom...	EnableV2Profiler
ComSpec	C:\Windows\system32\cmd...
COR_ENABLE_PROFILING	1
COR_PROFILER	AppDynamics.AgentProfiler
CORECLR_ENABLE_PROFILING	1
CORECLR_PROFILER	AppDynamics.AgentProfiler
FP_NO_HOST_CHECK	NO
InternalAppDynamicsAgent_Pro...	w3wp aspnet_wp wawebho...
NUMBER_OF_PROCESSORS	8

- Add the below values as System variables
 - .NET 64-bit Application**

```
VSP_AdditionalProfiler_x64_Path=C:\Program Files\AppDynamics\AppDynamics .NET Agent\AppDynamics.Profiler_x64.dll
VSP_AdditionalProfiler_CLSID=AppDynamics.AgentProfiler
```

- .NET 32-bit Application**

```
VSP_AdditionalProfiler_x86_Path=C:\Program Files\AppDynamics\AppDynamics .NET Agent\AppDynamics.Profiler_x86.dll
VSP_AdditionalProfiler_CLSID=AppDynamics.AgentProfiler
```

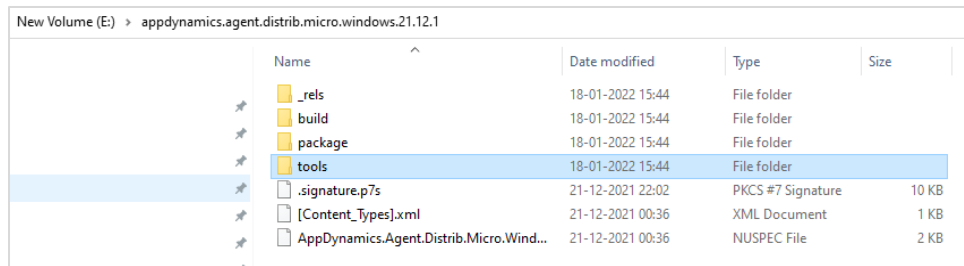
- Restart IIS server

1.2. Configuration on .NET Core Application

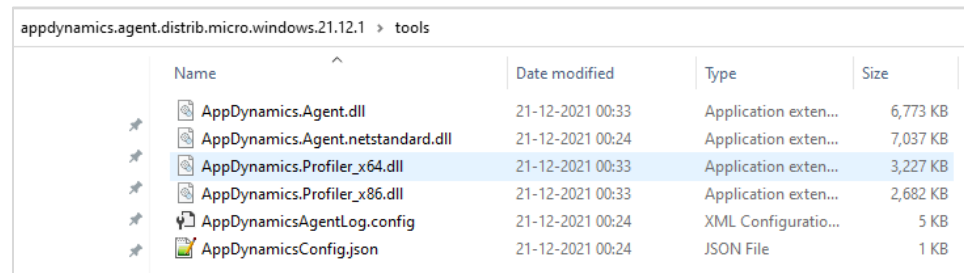
- Download the NuGet package from the link:

<https://www.nuget.org/packages/AppDynamics.Agent.Distrib.Micro.Windows/>

2. Extract the downloaded file



3. Navigate to the **tools** directory



4. Copy the files in the directory **tools** to the target system. Place them in any directory. Example:

C:\<foldername>

5. Install VSP Probe

6. Install App Dynamic Agent by following the below article:

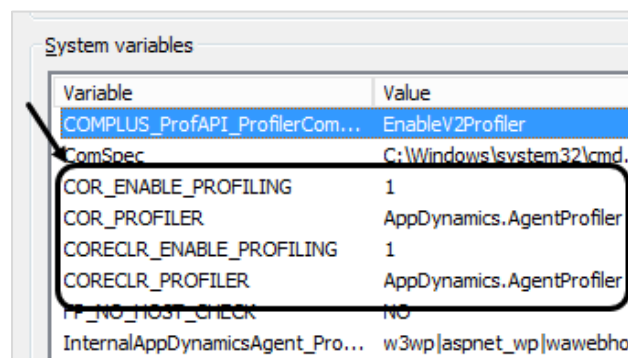
<https://docs.appdynamics.com/21.4/en/application-monitoring/install-app-server-agents/net-agent/install-the-net-agent-for-windows>

7. After installation, remove the below system-level environmental variables. These environmental variables are configured by AppDynamics Installer



NOTE:

Make a note of the deleted system-level environmental variables and their values. If VSP is un-installed, these variables need to be added again for AppDynamics to function as expected



8. Add the below values as System variables

a. .NET Core 64-bit Application

```
VSP_AdditionalProfilerCore_x64_Path=C:\<foldername>\AppDynamics.Profiler_x64.dll
VSP_AdditionalProfilerCore_CLSID={39AEABC1-56A5-405F-B8E7-C3668490DB4A}
```

- i. Restart IIS server
- ii. The file `AppDyanmicsConfig.json` can be used to update the AppDynamics Controller information. It is retrieved from the AppDynamics account

b. .NET Core 32-bit Application

```
VSP_AdditionalProfilerCore_x86_Path=C:\<foldername>\AppDynamics.Profiler_x86.dll
VSP_AdditionalProfilerCore_CLSID={39AEABC1-56A5-405F-B8E7-C3668490DB4A}
```

- i. Restart IIS server

2. New Relic Configuration

New Relic is an application performance monitoring tool that captures the performance metrics of applications.

2.1. Configuration on .NET/.NET Core Application

Follow the below steps:

1. Install VSP Probe
2. Install New Relic Agent by following the below article: <https://docs.newrelic.com/docs/agents/net-agent/configuration/net-agent-configuration/>
3. After installation, remove the below system-level environmental variable `CORECLR_PROFILER`. This environmental variable is configured by New Relic Installer



NOTE:

Make a note of the deleted system-level environmental variable and its value. If VSP is uninstalled, this variable needs to be added again for New Relic to function as expected

Variable	Value
CORECLR_NEWRELIC_HOME	C:\ProgramData\New Relic\ .NET Agent\
CORECLR_PROFILER	{36032161-FFC0-4B61-B559-F6C5D41BAE5A}
MSMPI_BIN	C:\Program Files\Microsoft MPI\Bin\
NEWRELIC_INSTALL_PATH	C:\Program Files\New Relic\ .NET Agent\
NUMBER_OF_PROCESSORS	8
OS	Windows_NT
Path	C:\Program Files\Microsoft MPI\Bin\;C:\Program Files (x86)\Common Files\Oracle\Java\javapath;C:\Windows\s...

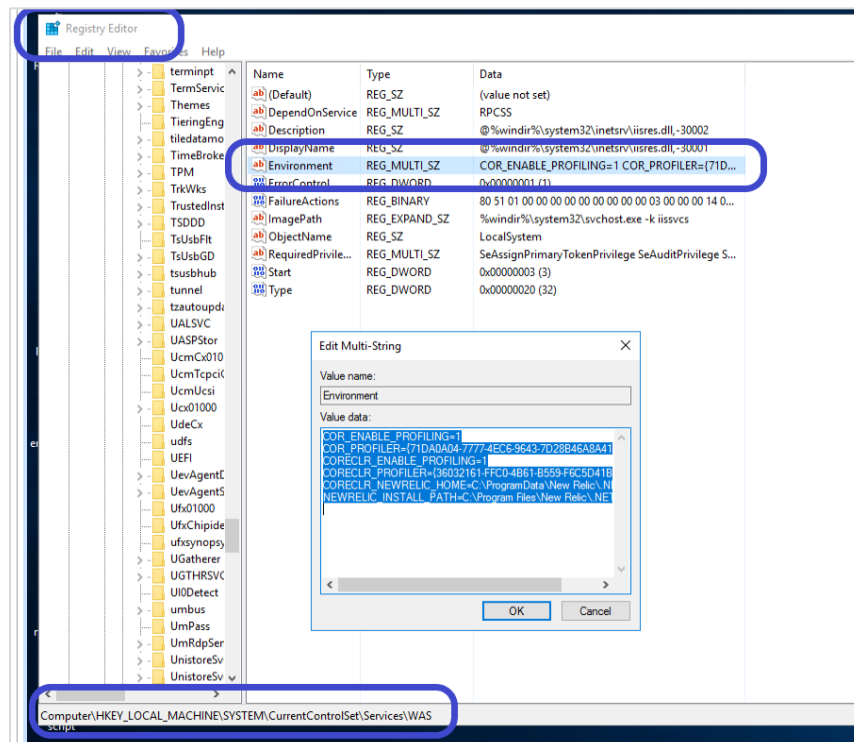
- Remove the below system-level environmental variables using the Registry Editor. Navigate to **HKEY_LOCAL_MACHINE > SYSTEM > CurrentControlSet > Services > WAS > Environment**. These environmental variables are configured by New Relic Installer

```

COR_ENABLE_PROFILING=1
COR_PROFILER={71DA0A04-7777-4EC6-9643-7D28B46A8A41}
CORECLR_ENABLE_PROFILING=1
CORECLR_PROFILER={36032161-FFC0-4B61-B559-F6C5D41BAE5A}
CORECLR_NEWRELIC_HOME=C:\ProgramData\New Relic\ .NET Agent\
NEWRELIC_INSTALL_PATH=C:\Program Files\New Relic\ .NET Agent\
    
```

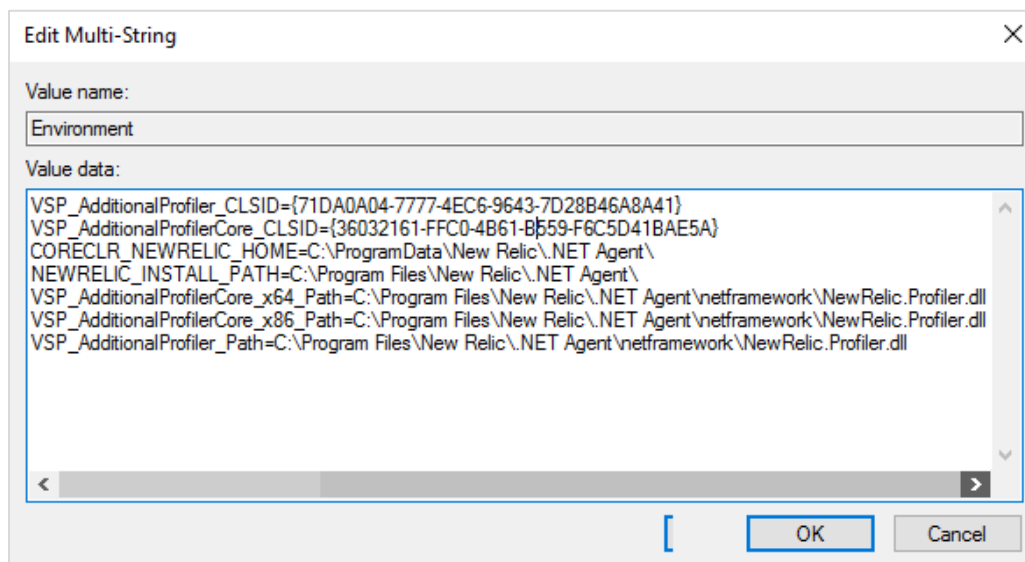

NOTE:

Make a note of the deleted system-level environmental variables and their values. If VSP is un-installed, these variables need to be added again for New Relic to function as expected



5. Add the below values as System Environment variables in the Registry Editor. Navigate to **HKEY_LOCAL_MACHINE > SYSTEM > CurrentControlSet > Services > WAS > Environment**

```
VSP_AdditionalProfiler_CLSID={71DA0A04-7777-4EC6-9643-7D28B46A8A41}
VSP_AdditionalProfilerCore_CLSID={36032161-FFC0-4B61-B559-F6C5D41BAE5A}
CORECLR_NEWRELIC_HOME=C:\ProgramData\New Relic\NET Agent\
NEWRELIC_INSTALL_PATH=C:\Program Files\New Relic\NET Agent\
VSP_AdditionalProfilerCore_x64_Path=C:\Program Files\New Relic\NET
Agent\netframework\NewRelic.Profiler.dll
VSP_AdditionalProfilerCore_x86_Path=C:\Program Files\New Relic\NET
Agent\netframework\NewRelic.Profiler.dll
VSP_AdditionalProfiler_Path=C:\Program Files\New Relic\NET
Agent\netframework\NewRelic.Profiler.dll
```



6. Restart IIS server

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