RUNNING .NET BASED APPLICATIONS IN IIS UNDER DIFFERENT VIRTUAL CLOCKS WITH TIME MACHINE.

System Details:

OS Name: Microsoft[®] Windows Server[®] 2008 Enterprise **Version:** 6.0.6002 Service Pack 2 Build 6002 Internet Information Services (IIS) version 7.0 ASP .NET Framework version 4.0.30319 Assumes you have an existing .NET application

START:

1) Start Internet Information Services (IIS) Manager

(%SystemRoot%\system32\inetsrv\InetMgr.exe)

- 2) Click & expand your server's name in the left pane (example: WIN2008X64-ENT)
- 3) Left click "Application Pools"



4) in the center pane right click "Add Application Pool"



5.) Enter the name of the account you want to run this new pool under "name", choose your .NET Framework version (this example uses 4.0.30319) & click [OK]. This paper uses the local account "Web2" which is a member of the Administrators Group.

Add Application Pool	? X
Name:	
Web2	
.NET Eramework version:	-
Managed pipeline mode:	
Integrated	
Start application pool immediately	
OK Cance	el

5) Your new Application Pool should now be running. In the IIS manager screen, left click the new pool then on the right pane click on "Advanced Settings"

8		
	(General)	
	.NET Framework Version	v4.0
	Enable 32-Bit Applications	False
	Managed Pipeline Mode	Integrated
	Name	Web2
	Queue Length	1000
	Start Automatically	True
Ξ	CPU	
	Limit	0
	Limit Action	NoAction
	Limit Interval (minutes)	5
	Processor Affinity Enabled	False
	Processor Affinity Mask	4294967295
⊡	Process Model	
	Process Model Identity	ApplicationPoolIdentity
	Process Model Identity Idle Time-out (minutes)	ApplicationPoolIdentity 20
	Process Model Identity Idle Time-out (minutes) Load User Profile	ApplicationPoolIdentity 20 False
	Process Model Identity Idle Time-out (minutes) Load User Profile Maximum Worker Processes	ApplicationPoolIdentity 20 False 1
	Process Model Identity Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled	ApplicationPoolIdentity 20 False 1 True
	Process Model Identity Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled Ping Maximum Response Time (second	ApplicationPoolIdentity 20 False 1 True 90
	Process Model Identity Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled Ping Maximum Response Time (second Ping Period (seconds)	ApplicationPoolIdentity 20 False 1 True 90 30
	Process Model Identity Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled Ping Maximum Response Time (second Ping Period (seconds) Shutdown Time Limit (seconds)	ApplicationPoolIdentity 20 False 1 True 90 30 90

7) In the Advanced Settings menu locate the "Identity" tag under the "Process Model" section & click the expansion [...] box to change to a custom account. Click on "() <u>C</u>ustom Account" You will be prompted for the user name and password.

Арр	lication Pool Identity	<u>? ×</u>
C	Built-in account:	
	ApplicationPoolIdentity	
œ	Custom account:	
	web2 Se	et
	OKC	ancel

You now have an Application Pool that can run any ASP applications under a different user Identity.

NOW CREATE A NEW WEB SITE TO HOST THE APPLICATIONS YOU WANT TO RUN UNDER TIME MACHINE VIRTUAL CLOCKS. THESE CAN BE EITHER COPIES OF YOUR EXISTING APPLICATIONS OR ENTIRELY NEW CODE.

8) In the left pane of the IIS Manager right click on sites an choose "Add Web Site"

Internet Information Services (IIS)) Manager		
() (i) (ii) (iii)	► Sites ►		🗾 🖸 🖂 🟠 I 🛛 🕶
File View Help			
Connections	Citer		Actions
🔍 - 🗔 🖄 🔝 🕺 🎽	SILES		💣 Add Web Site
Start Page	- 🖓 Go	- Show All Group by:	Set Web Site Defaults
Application Pools Name	ID	Status Binding	😢 Help
Add Web Site	b Site 1	Started (ht *:80 (http),808:*	Online Help
	2	Started (http) 192.168.20.111:	
Refresh			
Switch to Content View			
		Þ	
Feature Feature	es View 🗟 Content View		
			6 2 .
Ready			1 .:

You will see the following window:

Add Web Site	<u>? ×</u>
Site name: Application pool:	
Web2 Web2	S <u>e</u> lect
Content Directory	
Physical path:	
C:\inetpub\Web2	
Pass-through authentication	
<u>C</u> onnect as Test Settings	
-Binding	
Type: IP address: Port: http Image: All Unassigned 80	
Host name:	
Example: www.contoso.com or marketing.contoso.com	
Start Web site immediately	
OK	Cancel

- 9) For site name enter the Identity name used above eg:"Web2"
- 10) Under Physical Path this paper uses C:\Inetpub\Web2. You can specify whatever you like. Also set the IP Address to that of the local machine and assign a port, eg. 88
- 11) Now click on "<u>Connect as...</u>" and choose "()Specific <u>user</u>", the click the [set] button.

Connect As	<u>? ×</u>
Path credentials:	
• Specific <u>u</u> ser:	
	<u>S</u> et
Application user (pass-through authentication)	
OK	Cancel

12) Enter the User name & Password & click [OK]

Set Credentials	<u>?</u> ×
User name:	
Web2	
Password:	
•••••	
<u>C</u> onfirm password:	
•••••	
OK Canc	el

13) Enter a different port number on the "Add Web Site" applet if you wish, then click [OK]

THE NEW WEB SITE SHOULD BE RUNNING. LET'S IMPORT AN APPLICATION FOR IT TO HOST.

14) Copy the .NET package into the default web site's root.

15) In the IIS manager select the web site in the left pane and on the right pane, near the bottom of the panel, click on "Import Application". The following window displays:

Import App	plication Package					<u>?</u> ×
J.	Select the Package					
Specify th Packa <u>q</u> e p	e location of the package (for examp bath:	ole, C:\WebApplicat	ion.zip).			
C:\inetpu	ıb\Web2\ClockTest.zip				Browse	
					1	- 1
		Previous	Next	Einish	Cance	

16) Browse to your application code directory, select your zip deployment file, then click [Next]

17) When you see the window below, just click [Next]

Import App	lication Package		<u>? ×</u>
J	Select the Contents of the Package		
Package co	ontains:		
	Web Application (C:\inetpub\Web2\Clock2\Clock\Ravs.Cloc Create an application (C:\inetpub\Web2\Clock2\Clock4 File System Content (C:\inetpub\Web2\Clock2\Clock4 	Path	C:\inetpub\Web2\
			Advanced <u>S</u> ettings
	Previous <u>N</u> e	xt	jnish Cancel

18) Enter the web path that should be used to access this application. Click Next.

Import App	lication Package	? ×
I	Enter Application Package Information	
Enter info	rmation that is required to install this package:	
Applic Full site Web2/	ation Path path where you want to install your application (for example, Default Web Site/Application). ClockTest	
	Previous Enish Canc	el

19) The Application will now be imported. If this succeeds, you will see the success screen as below. Click [<u>F</u>inish]

Import Application Package		? ×
Installation Progress and	d Summary	
Summary Details The package was installed successfully. The following actions were performed: Added 2 Directories. Added 6 Files.		
	Previous Next Einish Can	cel

20) Back in the main view of IIS Manager expand the new web site until you see the listing of the new application. In this case it is *Sites/Web2/ClockTest*.



2

1) In the right Actions pane go to the Manage Application section then click on the http link under the Browse Application section. This will load the application in your Web Browser.

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3	<u>4</u>	<u>5</u>	<u>6</u>	7	<u>8</u>	<u>9</u>		
10	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>		
17	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	22	<u>23</u>		
24	<u>25</u>	<u>26</u>	27	<u>28</u>	<u>29</u>	<u>30</u>		
31	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>		
Done							Sinternet Protected Mode: Off	//.

NOW WE WILL GIVE THE APPLICATION A VIRTUAL DATE.

22) Start a command line, (click the [Start] button, then select "run", enter CMD, then select [OK]

23) Start the Time Machine service by entering "net start 3stms".

```
Administrator: C:\Windows\system32\cmd.exe
C:\Users\Administrator>net start 3stms
The Time Machine service is starting.
The Time Machine service was started successfully.
C:\Users\Administrator>_
```

24) Assign a virtual date to the "Web2" account. In this example we will set the date to February 28, 2019 at 11:59 pm. The command will be "tmuser -a -u Web2 -x 022823592019".

Administrator: C:\Windows\system32\cmd.exe	
C:\Users\Administrator>tmuser -a -u Web2 -x 022823592019	
C:\Users\Administrator>	
	-

25) Verify the virtual date if you wish by running "tmuser -l".

Administrator: C:\Windows\system32\cmd.exe		- 🗆 🗵
C:\Users\Administrator≻tmuser -1 Listing all virtual clocks:		-
ACCOUNT	CLOCK INFORMATION	
(U) WIN2008X64-ENT\web2	Thu Feb 28 2019 23:59:37 (GMT-08:00) Pacific Time (US & Canada) Virtual date and time in system's time zone. Clock runs in normal speed.	
C:\Users\Administrator>_		

26) Now go back to the recently added .NET application in your web browser. You should see the code is now running under the virtual date.

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27) The following is a screen shot of a version of the same application running in system time concurrently.

Time Machine .dll Web Sample for ASP.NET! - Windows Internet Explorer															
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Following the procedures in this guide you can easily set each of your IIS hosted .NET web sites on the same machine to run under any time and or date you desire independently.

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