

# Setting up IIS – Internet Information Server for TimeTrak

# How to set up IIS to meet TimeTrak Requirements

## Before you begin:

- Make sure IIS is closed
- .NET 4.8. is required on both the webserver and any other server or PC that will be used to run TimeTrak Administrator Console.

You can download it from Microsoft. Download .NET Framework 4.8 Web Installer (microsoft.com)

#### To check what version of .NET is already installed:

# How to check with CMD reg query "HKLM\SOFTWARE\Microsoft\Net Framework Setup\NDP\v4" /s

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Net Framework Setup\NDP\v4\Full
    CBS
          REG_DWORD
                       0x1
    Install
              REG_DWORD
                           0x1
    InstallPath REG_SZ
                            C:\Windows\Microsoft.NET\Framework64\v4.0.30319\
              REG_DWORD
    Release
                           0x82348
    Servicing
                REG_DWORD
                              0x0
    TargetVersion
                              4.0.0
                    REG_SZ
              REG_SZ
    Version
                        4.8.09032
```

#### How to check with PowerShell

#### TimeTrak requires the following to be configured.

.NET Extensibility 4.X	HTTP Errors
Application Development	IIS Management Console
Application Initialization	ISAPI Extensions
ASP .NET 4.X	ISAPI Filters
Default Document	Request Filtering
Directory Browsing	Static Content Compression
Enable Static Content	URL Rewrite

You can step through the guide below to install IIS and modules manually or on the last page there is a script to install IIS and all required modules.

Go into Control Panel and select Turn Windows features on or off as per below.



This will launch Server Manager

You will see an "Add Roles and Features Wizard" as per below, Click next.



Choose the installation type based on your environment.

In this example, we choose "Role-based or feature-based installation" and then click next.

Add Koles and Features Wizard		_3	
Select installation	type	DEST Wit	INATION SERV
Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	<ul> <li>Select the installation type. You can install roles and features on a running machine, or on an offline virtual hard disk (VHD).</li> <li>Role-based or feature-based installation Configure a single server by adding roles, role services, and features.</li> <li>Remote Desktop Services installation Install required role services for Virtual Desktop Infrastructure (VDI) to c or session-based desktop deployment.</li> </ul>	physical comp	machine-ba
ect the destination server	< Previous Next >	Install	Cance
📥 Add Roles and Features Wizar	d	-	
Add Roles and Features Wizar	d N Server Select a server or a virtual hard disk on which to install roles and features. Select a server from the server pool Select a server of the server pool	DESTINAT WIN-TC	ION SERVER
Add Roles and Features Wizar Select destinatio Before You Begin Installation Type Server Selection Server Roles Features Confirmation	d Select a server or a virtual hard disk on which to install roles and features. Select a server from the server pool Select a virtual hard disk Server Pool Filter:	DESTINAT WIN-TC	
Add Roles and Features Wizar Select destinatio Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	d Select a server or a virtual hard disk on which to install roles and features. Select a server from the server pool Select a virtual hard disk Server Pool Filter: Name IP Address Operating System WIN-TO10HOV266E 192.168.232.132 Microsoft Windows Server 2	DESTINAT WIN-TC	
Add Roles and Features Wizar Select destinatio Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	d         n Server         Select a server or a virtual hard disk on which to install roles and features.            • Select a server from the server pool         • Select a virtual hard disk          Server Pool         Filter:         Name       IP Address         Operating System         WIN-TO10HOV266E       192.168.232.132         Microsoft Windows Server 2         1 Computer(s) found         This page shows servers that are running Windows Server 2012 or a newer re and that have been added by using the Add Servers command in Server Man newly-added servers from which data collection is still incomplete are not show	DESTINAT WIN-TO 019 Standard elease of Windo nager. Offline se own.	IDON SERVER D10HOV266E

On the next screen, you need to choose the roles that you need to install.

These are the roles that you need to set up for TimeTrak:

## **Internet Information Services:**

Web Server (IIS) > Management Tools

• IIS Management Console



Web Server (IIS) > Web Server > Application Development

- Enable Application Development
- Enable .NET Extensibility 4.X
- Enable Application Initialization
- Enable ASP .NET 4.X
- Enable ISAPI Extensions
- Enable ISAPI Filters

🚵 Add Roles and Features Wizard



#### Web Server (IIS) > Web Server > Common HTTP Features

- **Enable Default Document** •
- **Enable Directory Browsing**
- **Enable HTTP Errors**
- **Enable Static Content** .



### Web Server (IIS) > Web Server > Performance

**Enable Static Content Compression** •

📥 Add Roles and Features Wizard

# Select server roles

Select one or more roles to install on the selected server.



#### Web Server (IIS) > Web Server > Security





Once everything is done, click next and you will see other features that you need to install on your server. It's not mandatory for TimeTrak so we can continue to the next screen.

Select features		DESTINATION SERVER FTG-2016VM
Before You Begin Installation Type Server Selection	Select one or more features to install on the selected server. Features	Description
Server Roles	Remote Differential Compression  Remote Server Administration Tools  Reference HTTP Report	comprehensive and consistent programming model for quickly and
Confirmation	Setup and Boot Event Collection	applications that are built for variou
Results	Simple TCP/IP Services         SMB 1.0/CIFS File Sharing Support (Installed)         SMB Bandwidth Limit         SMTP Server         SMTP Service         Software Load Balancer         Storage Replica         Telnet Client         TFIP Client         VM Shielding Tools for Fabric Management         WebDAV Redirector         Windows Biometric Framework         Windows Identity Foundation 3.5	platforms including desktop PCs, Servers, smart phones and the publi and private cloud.
	(	

You can review any roles and features that you want to install based on the roles that you have ticked on.

**Note:** DO NOT tick on 'restart the destination server automatically if required' if you don't want the server to restart without any warning. With this left unticked - if a restart is required, you will be prompted to restart.

After everything is according to what you need, click install.

When everything is done, you will have IIS on your server.

SEIECTOTIS WIN-тотоной	/266E								
a install the following roles, role services, or features on selected server, click Install.									
Restart the destination server automatically if required									
ptional features (such as administration tools) might be displayed on this page because they hav	e								
een selected automatically. If you do not want to install these optional features, click Previous to peir check hoves	clear								
NET Framework 4.7 Features									
ASP.NET 4.7									
Web Server (IIS)									
Web Server									
Application Development									
ASP.NET 4.7									
ICADI Elitore									
NET Extensibility 4.7									
.NET Extensibility 4.7									
xport configuration settings									
	Application features (such as administration tools) might be displayed on this page because they have een selected automatically. If you do not want to install these optional features, click Previous to heir check boxes. INET Framework 4.7 Features ASP.NET 4.7 Web Server Application Development Application Initialization ASP.NET 4.7 ISAPI Extensions ISAPI Filters .NET Extensibility 4.7 Export configuration settings								

Open IIS and you will have IIS management window.

File View Help												
Connections Connections Start Page Visit Page Visit Page Visit Page	WIN-TO10HOV266E Home           Filter:         • 7 Go • C Show All   Group by: Area         • E •											
Sites	.NET Authorizat	.NET Compilation	.NET Error Pages	.NET Globalization	.NET Trust Levels	Application Settings	Connection Strings	Machine Key	Pages and Controls	Providers	Session State	SMTP E-mail
	Authentic	2 Compression	Default Docum/Mat	Directory Browsing	A Error Pages	Handler Mappings	HTTP Respon	ISAPI and CGI Restri	(ISAPI Filters	Logging	MIME Types	Modules
	Output Caching	<b>R</b> equest Filtering	Server Certificates	Worker Processes								
	Manageme Configurat	ent Feature	Shared									

Go to your server name > application pools, and you can see all the application roles that you have set up. The most important to see here is you have .Net v4.x installed in here.



You will need to download and install URL Rewrite Module 2.1 if you do not see it in the module list.

# x64 Installer URL Rewrite x86 Installer URL Rewrite

Download, run, and follow the prompts to install the module.

Lastly, restart your IIS Manager, and you should now have the module available.



**NOTE:** If IIS was installed after the .Net Framework then after installation of IIS, you will need to re-register the .NET Framework so that the recently installed IIS can access the .NET version.

Click on Windows Start menu

Search Command Prompt then right click and Run as Administrator



#### Type or copy-paste the following path

c:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet\_regiis.exe -i



#### Script to install IIS and all Modules on Windows Server (Run PowerShell as an Administrator)

```
$moduleName = "UrlRewrite2"
$moduleVersion = "2.1"
$moduleArchitecture = Get-WmiObject win32_processor | Select-Object AddressWidth | Select-Object -
ExpandProperty AddressWidth
$tempDir = "C:\Temp"
if (!(Test-Path -Path $tempDir -PathType Container)) {
    Write-Output "Creating directory $tempDir ..."
    New-Item -Path $tempDir -ItemType Directory | Out-Null
}
if ($moduleArchitecture -eq 64) {
    $moduleDownloadUrl = "https://download.microsoft.com/download/1/2/8/128E2E22-C1B9-44A4-BE2A-
5859ED1D4592/rewrite_amd64_en-US.msi"
    $moduleInstallerPath = "$tempDir\UrlRewrite_amd64.msi"

} elseif ($moduleArchitecture -eq 32) {
    $moduleDownloadUrl = "https://download.microsoft.com/download/D/8/1/D81E5DD6-1ABB-46B0-9B4B-
21894E18B77F/rewrite_x86_en-US.msi"
    $moduleInstallerPath = "$tempDir\UrlRewrite_x86.msi"
} else {
    Write-Output "Unknown server architecture."
        exit
}
if (!(Get-ChildItem "HKLM:\SOFTWARE\Microsoft\IIS Extensions\UrlRewrite" -ErrorAction SilentlyContinue)) {
    write-Output "$moduleName is not installed. Downloading and installing $moduleName version
$moduleVersion..."
    write-Output "Downloading $moduleName version $moduleVersion for $moduleArchitecture-bit

        Write-Output
architecture..."
Invoke-WebRequest -Uri $moduleDownloadUrl -OutFile $moduleInstallerPath
write-Output "Download of $moduleName version $moduleVersion for $moduleArchitecture-bit architecture
is complete."
        write-Output "Installing $moduleName version $moduleVersion..."
Start-Process -FilePath msiexec.exe -ArgumentList "/i $moduleInstallerPath /quiet" -Wait
Write-Output "Installation of $moduleName version $moduleVersion is complete."
} else
             Ł
        Write-Output "$moduleName is already installed."
3
$logfile = "C:\temp\TimeTrakIISSetup.txt"
    Function to log messages to the specified file
function LogMessage {
    param(
                          meter(Mandatory=$true)]
                [string]$Message
       )
        Add-Content -Path $logfile -Value "$Message"
3
# Array of features to install
$features = @(
    "Web-Server",
    ""
       "Web-Mgmt-Tools"
"Web-Security",
"Web-App-Dev",
         "Web-Net-Ext45"
        "Web-AppInit",
"Web-Asp-Net45"
"Web-ISAPI-Ext"
         "Web-ISAPI-Filter"
         "Web-Default-Doc
        "Web-Dir-Browsing",
"Web-Http-Errors",
"Web-Static-Content"
        "Web-Stat-Compression",
"Web-Filtering"
)
foreach ($feature in $features) {
        $installed = Get-windowsFeature -Name $feature | where-Object {$_.Installed -eq $true}
if (!$installed) {
               # Feature is not installed, so install it
Write-Output "Installing $feature"
LogMessage "Installing $feature"
Install-WindowsFeature -ComputerName localhost -Name $feature -IncludeManagementTools | Out-Null
LogMessage "Installed $feature"
Write-Output "Installed $feature"
       } ""
else {
    write-Output "$feature is already installed"
    LogMessage "$feature is already installed"
}
```