

# Modify Storage Tiers Optimization with #PowerShell #StorageSpaces

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 [charbelnemnom.com/modify-storage-tiers-optimization-with-powershell](https://charbelnemnom.com/modify-storage-tiers-optimization-with-powershell)

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In this article, I will show you how to modify storage tiers optimization with PowerShell.

## Introduction

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The killer feature in Windows Server is **Storage Tiered Spaces**.

What are Storage Tiered Spaces?

Storage Tiers automatically moves frequently accessed data to faster (solid-state drive) storage and infrequently accessed data to slower (hard disk) storage, by having the file system actively measure the activity of the workload in the background and then automatically and transparently move data to the appropriate tier (SSD or HDD) depending on how hot or cold the data is determined to be.

Storage Spaces in Windows Server 2012 R2 can thus ensure that the workload's hot data is always stored on the SSD tier to take advantage of the high performance of this tier, and its cold data on the HDD tier to make use of the high capacity of this tier. If a portion of the data for a particular file becomes hotter (is accessed more frequently), then it gets moved from the HDD tier to the SSD tier. And if the portion of data becomes cooler (is accessed less frequently), then it gets moved from the SSD tier to the HDD tier as shown in **figure 1**.

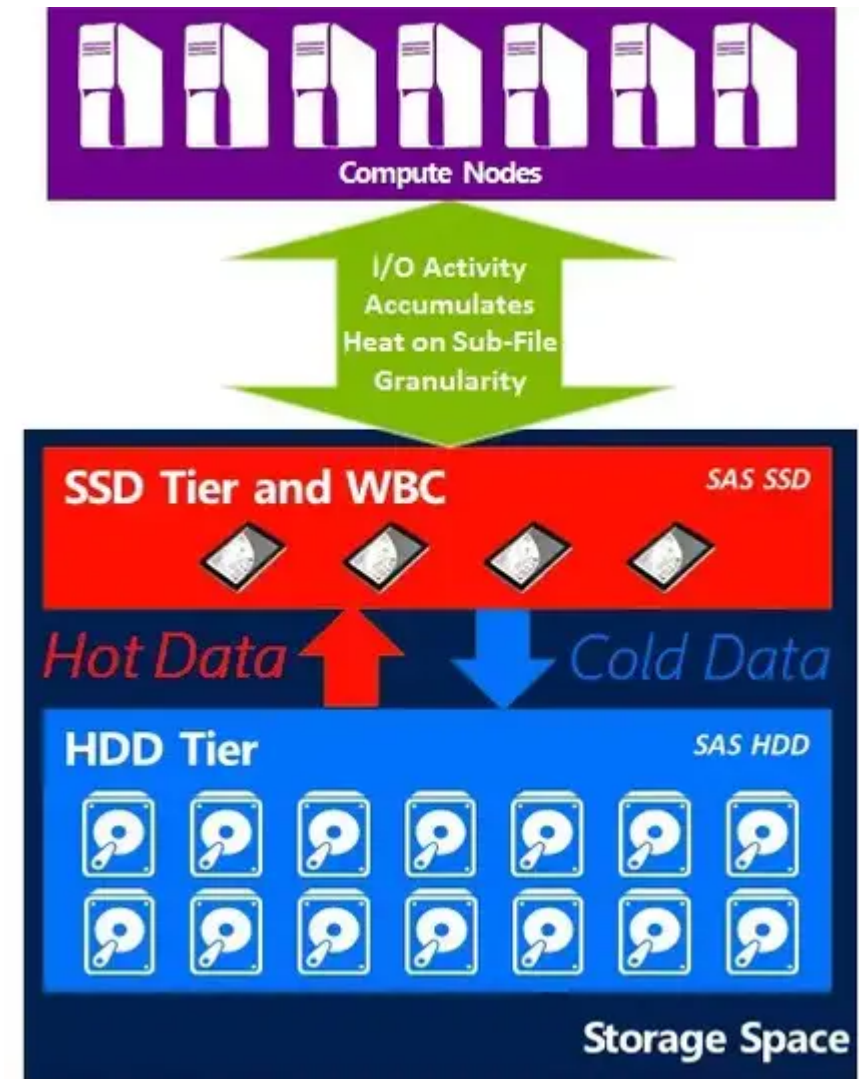


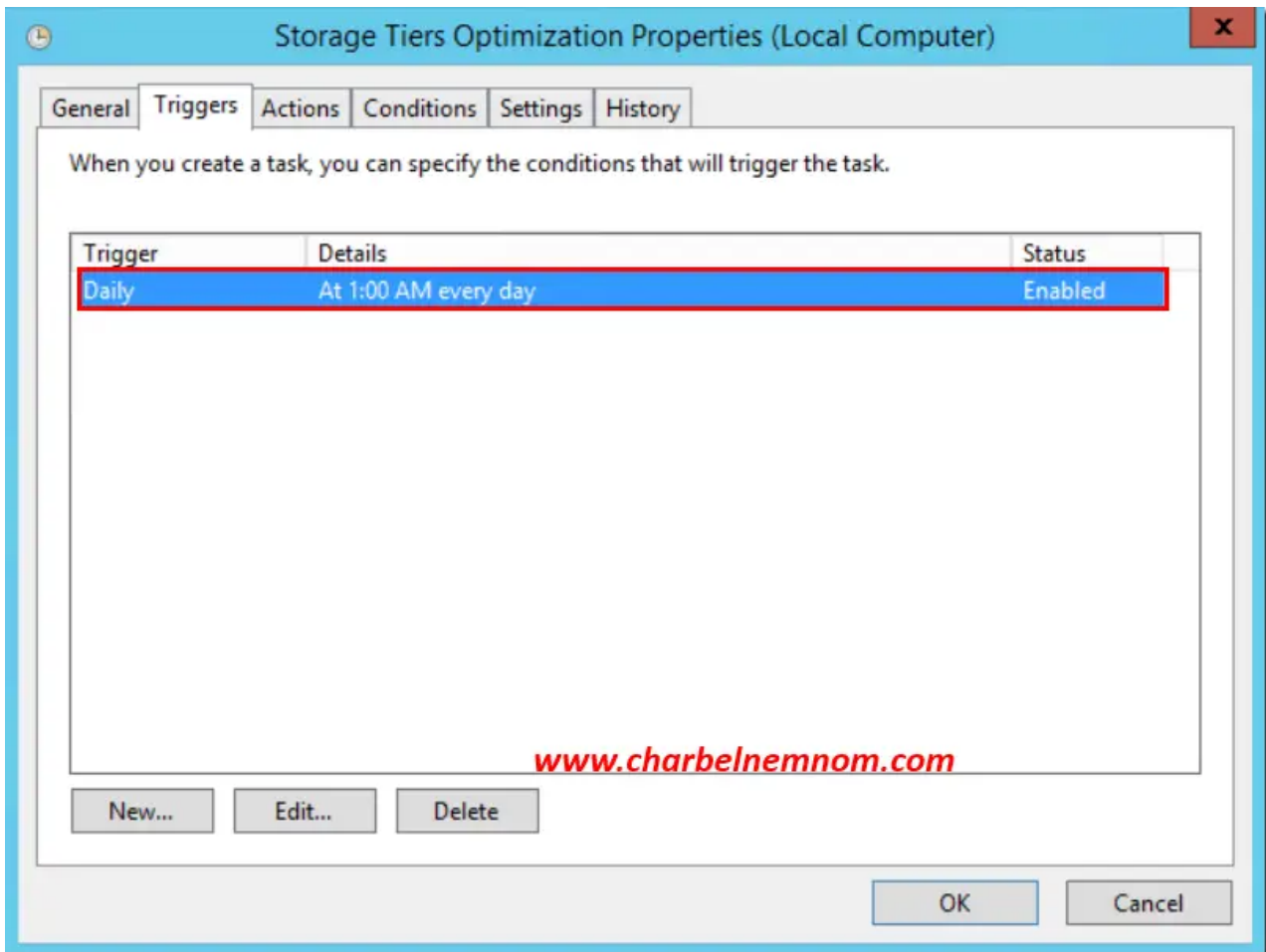
Figure 1

For more information on What's New in Storage Spaces in Windows Server 2012 R2, check [here](#).

Ok, so having this explained, the placement of data in storage tiers on all tiered storage spaces in the system is a daily task that runs every day at 1.00 AM.

```
PS C:\> Get-ScheduledTask -TaskName "Storage Tiers Optimization" | Get-ScheduledTaskInfo

LastRunTime       : www.charbelnemnom.com
LastTaskResult    :
NextRunTime       : 5/23/2014 1:00:00 AM
NumberOfMissedRuns : 0
TaskName          : Storage Tiers Optimization
TaskPath          : \Microsoft\Windows\Storage Tiers Management\
PSComputerName    :
```



## Modify Storage Tiers Optimization

The trigger can be customized to run more than once per day.

As I am running heavy SQL Virtual Machines workloads on my storage spaces, I need the system to determine more frequently the cold and hot data chunks and move them accordingly between the two tiers.

How can we accomplish this? Easy enough by creating a new Trigger in Task Scheduler UI.

How about if you want to add 4 or 5 Triggers, how many clicks do you want to click?

The cutting edge time is PowerShell 🤖

Here is an easy way to do it:

```
$Time1 = New-ScheduledTaskTrigger -Daily -At 7am
```

```
$Time2 = New-ScheduledTaskTrigger -Daily -At 12pm
```

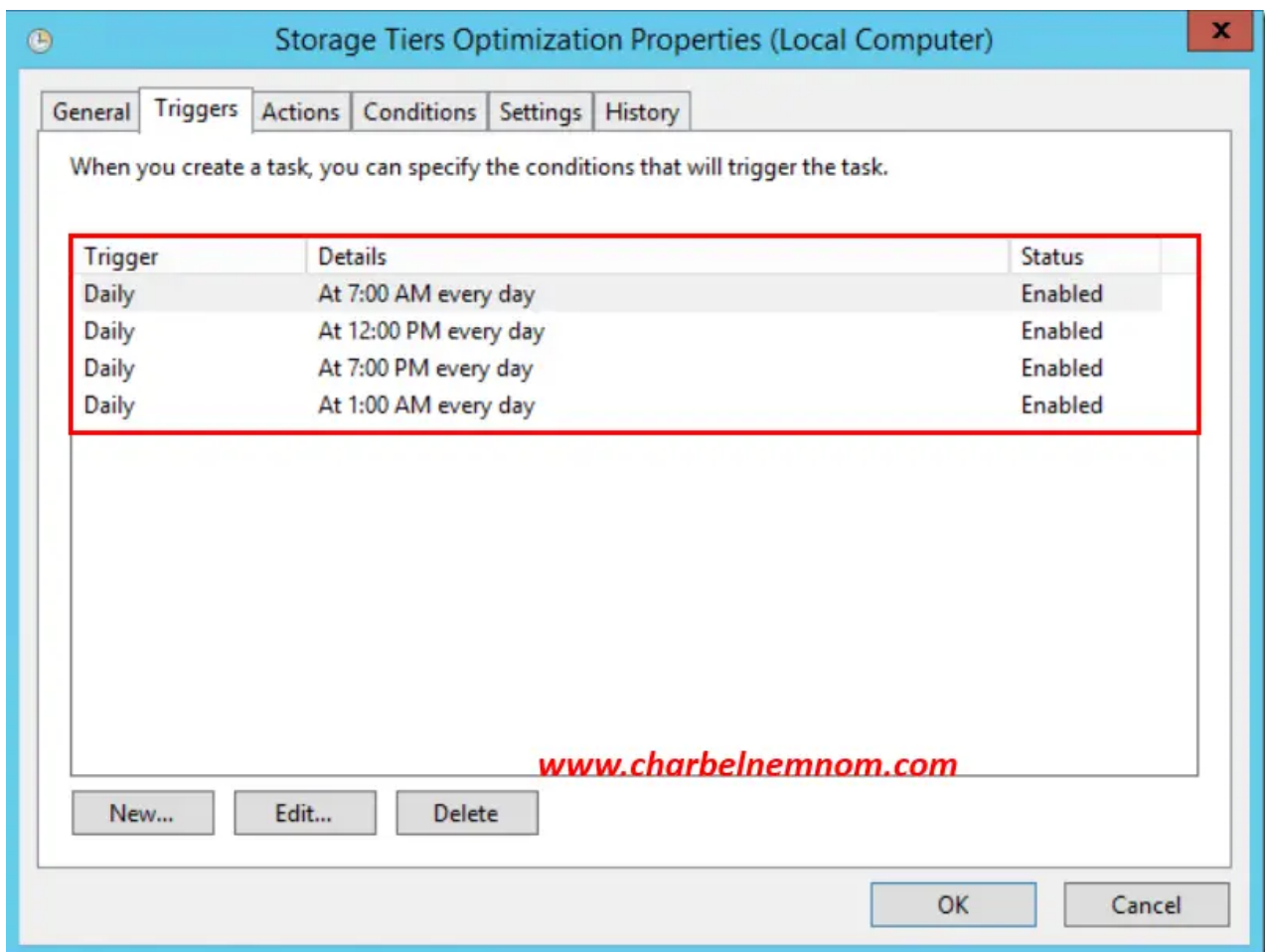
```
$Time3 = New-ScheduledTaskTrigger -Daily -At 7pm
```

```
$Time4 = New-ScheduledTaskTrigger -Daily -At 1am
```

```
Set-ScheduledTask -TaskPath "\Microsoft\Windows\Storage Tiers Management" -  
TaskName "Storage Tiers Optimization" -Trigger $Time1, $Time2, $Time3, $Time4
```

```
Get-ScheduledTask -TaskName "Storage Tiers Optimization" | fl Triggers
```

**Triggers : {MSFT\_TaskDailyTrigger, MSFT\_TaskDailyTrigger,  
MSFT\_TaskDailyTrigger, MSFT\_TaskDailyTrigger}**



Cheers,  
/Charbel