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Azure Sentinel management using PowerShell

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Introduction

Now that we have an official PowerShell module for Azure Sentinel, we can use PowerShell with Azure Sentinel. In this small ebook, I will show you how to manage Azure Sentinel with the native cmdlets. Just to point out, that's the first version, and in version 0.1.0, we have these cmdlets:

Incident management:

- Get-AzSentinelIncident
- New-AzSentinelIncident
- Get-AzSentinelIncidentComment
- New-AzSentinelIncidentComment
- New-AzSentinelIncidentOwner
- Remove-AzSentinelIncident
- Update-AzSentinelIncident

Alert Rule Management:

- Get-AzSentinelAlertRule
- Get-AzSentinelAlertRuleAction
- Get-AzSentinelAlertRuleTemplate
- New-AzSentinelAlertRule
- New-AzSentinelAlertRuleAction
- Remove-AzSentinelAlertRule
- Remove-AzSentinelAlertRuleAction
- Update-AzSentinelAlertRule
- Update-AzSentinelAlertRuleAction

Bookmark Management

- Get-AzSentinelBookmark
- New-AzSentinelBookmark
- Remove-AzSentinelBookmark
- Update-AzSentinelBookmark

Connector Management

- Get-AzSentinelDataConnector
- New-AzSentinelDataConnector
- Remove-AzSentinelDataConnector
- Update-AzSentinelDataConnector

Requirements

- PowerShell modules
  - AzureAD
  - Az.SecurityInsights
  - Az
- Azure Sentinel activated on your Log Analytics workspace
- Permissions

Every Azure Sentinel cmdlet requires us to specify **ResourceGroupName** and **WorkspaceName** parameters. To simplify that part, we can define a hash table with the needed information. Later we can reference that hash table. You can read more about that method from here - [about_Splatting - PowerShell | Microsoft Docs]

So let's get started.

The first step is to install these three PowerShell modules from the PowerShell Gallery

- **Install-Module -Name Az.SecurityInsights -Verbose -Force**
- **Install-Module -Name AzureAD -Verbose -Force**
- **Install-Module -Name Az -Verbose -Force**

Please remember that you need administrative permissions to install these.

The next step is to make a connection to your Azure environment using the **Connect-AzAccount** cmdlet. You can read more about **Connect-AzAccount** from here - [Connect-AzAccount (Az.Accounts) | Microsoft Docs]

If you have access to different subscriptions, then you may need to change the subscription. To achieve that, just run the **Get-AzSubscription** cmdlet, copy the subscription **ID** where you have the Azure Sentinel workspace and then run **Set-AzContext** cmdlet like this:

- Set-AzContext -Subscription %**MySubcriptionID%**
  - **%MySubcriptionID%** should be replaced with the actual ID

After all these steps, you should be ready to automate Azure Sentinel with PowerShell.

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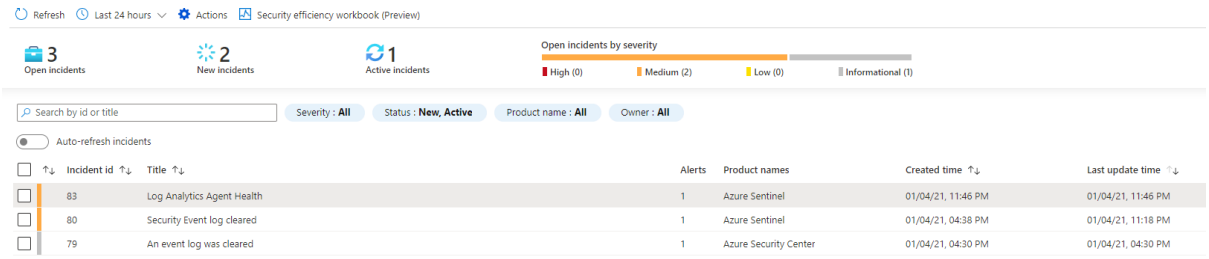
Part 1 – Incident Management using PowerShell

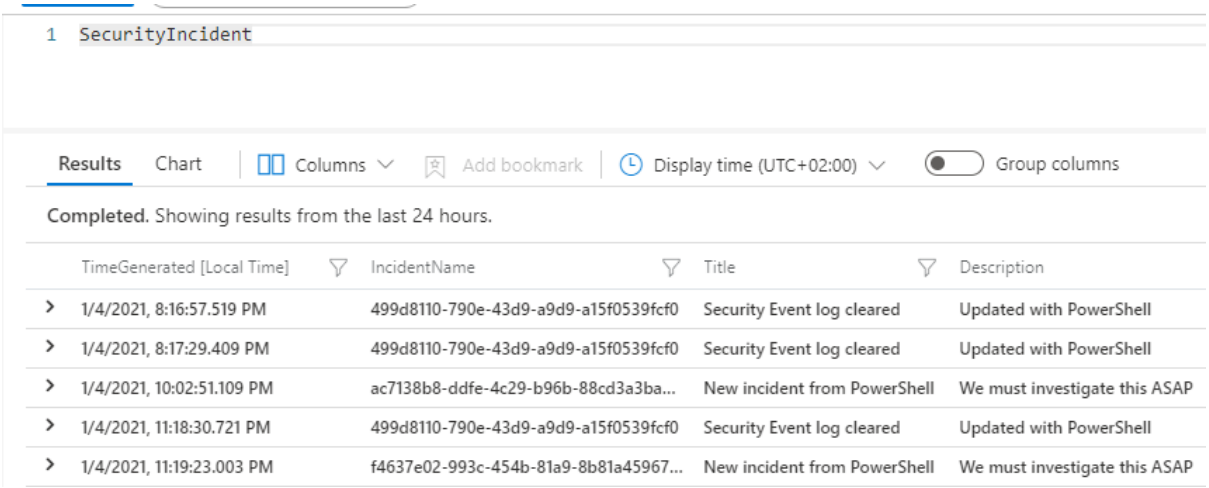
Get a specific incident

Summary

Most of the code examples include the **$AzureSentinelWorkSpaceInfo** variable. That's our hash table where we have stored our **resource group name** and **Log Analytics workspace name**. In the below code example, we are querying only one specific incident. As you see from the code block that we need to specify the **IncidentID** parameter. By default, the Azure Sentinel portal doesn't show that information, and you need to query that from the **SecurityIncident** table.



Azure Sentinel portal



SecurityIncident table

Copy the value from the **IncidentName** column, and you should see the incident details with PowerShell.

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Code example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$IncidentID = "499d8110-790e-43d9-a9d9-a15f0539fcf0"
Get-AzSentinelIncident @AzureSentinelWorkSpaceInfo -IncidentId $IncidentID
```

Output

```
Id                    : [redacted]

Name                  : 499d8110-790e-43d9-a9d9-a15f0539fcf0
Type                  : Microsoft.SecurityInsights/Incidents
Etag                  : "17003307-0000-0c00-0000-5ff3805b0000"
AdditonalData         : Microsoft.Azure.Commands.SecurityInsights.Models.Incidents.PSSentinelIncidentAdditionalData
Classification        :
ClassificationComment :
ClassificationReason  :
CreatedTimeUTC        : 04.01.2021 14:38:08
Description           : Updated with PowerShell
FirstActivityTimeUtc  : 04.01.2021 14:28:05
IncidentNumber        : 80
IncidentUrl           : [redacted]


Labels                : {}
LastActivityTimeUtc   : 04.01.2021 14:33:05
LastModifiedTimeUtc   : 04.01.2021 20:53:47
Owner                 : Microsoft.Azure.Commands.SecurityInsights.Models.Incidents.PSSentinelIncidentOwner
Severity              : Medium
Status                : Active
Title                 : Security Event log cleared
```

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List all incidents

Summary

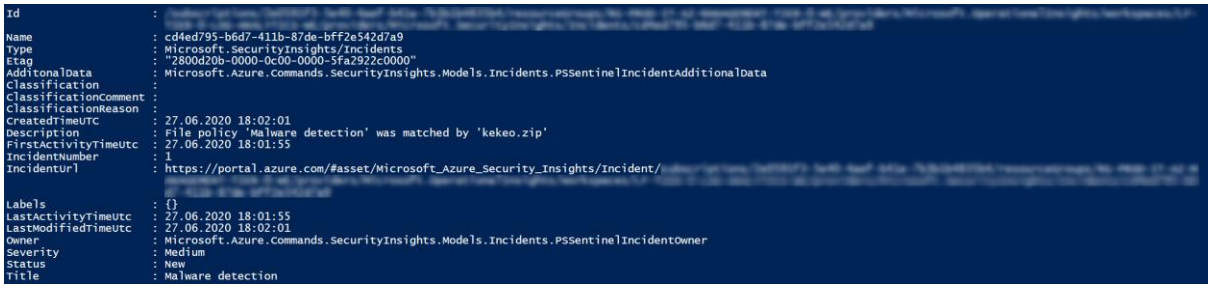
Get-AzSentinelIncident cmdlet allows you to query all the incidents. Just run the cmdlet with your environment information, and it should list all the incidents. If it is needed, you can do the filtering based on the **CreatedTimeUTC** property.

Code example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

Get-AzSentinelIncident @AzureSentinelWorkSpaceInfo
```

Output



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Get all incidents and order by CreatedTimeUTC property

Summary

In this example, we have selected only two different properties using the **Select-Object** cmdlet – **Title** and **CreatedTimeUTC** and then sorting the results based on the **CreatedTimeUTC** property.

Code example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

Get-AzSentinelIncident @AzureSentinelWorkSpaceInfo |
    Select-Object -Property Title,CreatedTimeUTC |
        Sort-Object -Property CreatedTimeUTC -Descending
```

Output

```
Title                                                CreatedTimeUTC
-----                                                --------------
Security Event log cleared                           04.01.2021 14:38:08
An event log was cleared                             04.01.2021 14:30:24
Connection to a blocked cloud application was detected 23.12.2020 09:30:55
Log Analytics Agent Health                           17.12.2020 12:49:09
Log Analytics Agent Health                           16.12.2020 12:48:41
Log Analytics Agent Health                           16.12.2020 12:48:41
Log Analytics Agent Health                           15.12.2020 20:08:22
```

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Get all incidents and convert CreatedTimeUTC property to local DateTime

Summary

As you saw from the previous example, incident creation dates are in the UTC time zone. To convert the dates into the local time zone, we need to add one additional function. I'm not the author of that function, and it is taken from the ScriptingGuy blog.

Code example

```
Function Convert-UTCtoLocal
{

#Source - https://devblogs.microsoft.com/scripting/powertip-convert-from-utc-to-my-local-time-zone/ PowerTip: Convert from UTC to my local time zone | Scripting Blog (microsoft.com)
#Author - Thomas Rayner

    Param(
        [Parameter(Mandatory=$True)]
        [String]$UTCTime
        )

    $CurrentTimeZone = (Get-WmiObject win32_timezone).StandardName
    $TimeZone = [System.TimeZoneInfo]::FindSystemTimeZoneById($CurrentTimeZone)
    $LocalTime = [System.TimeZoneInfo]::ConvertTimeFromUtc($UTCTime, $TimeZone)

    $LocalTime
}

$ProcessedIncidents = @()

$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$Incidents = Get-AzSentinelIncident @AzureSentinelWorkSpaceInfo
foreach($Incident in $Incidents){

    $IncidentDetails = [ORDERED]@{
        IncidentID = $Incident.Name
        CreatedTime = Convert-UTCtoLocal -UTCTime $Incident.CreatedTimeUTC
        Title = $Incident.Title
        Status = $Incident.Status
    }

    $PoshObject = New-Object -TypeName PSObject -Property $IncidentDetails
    $ProcessedIncidents += $PoshObject
}
$ProcessedIncidents
```

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Output

```
IncidentID                           CreatedTime         Title                                                    Status
----------                           -----------         -----                                                    ------
ac7138b8-ddfe-4c29-b96b-88cd3a3bad36 04.01.2021 22:02:51 New incident from PowerShell                             New
499d8110-790e-43d9-a9d9-a15f0539fcf0 04.01.2021 16:38:08 Security Event log cleared                               Active
2c89d3cd-d9a3-4a79-b826-fa778fd2fee4 04.01.2021 16:30:24 An event log was cleared                                 New
5572e3b6-207b-4f2f-bd81-3916df590d1c 23.12.2020 11:30:55 Connection to a blocked cloud application was detected   New
ae88d00c-b15a-4d31-bd3d-a843d3596fae 17.12.2020 14:49:09 Log Analytics Agent Health                               New
a4eca29b-1c32-4145-ba8e-f21f33d20242 16.12.2020 14:48:41 Log Analytics Agent Health                               New
19458b33-1d16-4cb4-9f3c-741fc01f85a9 16.12.2020 14:48:41 Log Analytics Agent Health                               New
6ad07c69-dea8-4937-acbc-6e5bfde59d94 15.12.2020 22:08:22 Log Analytics Agent Health                               New
212356dc-5ab6-4a92-8103-4dfb584ba337 15.12.2020 22:08:22 Log Analytics Agent Health                               New
```

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Update incident details

Summary

Changing the incident owner requires us to install the **Azure AD PowerShell** module. You can take the incident owner information manually from the Azure AD portal too, but most likely, it would be easier to use Azure AD PowerShell cmdlets for that. Run the **Get-AzureADUser** cmdlet and get the user details. After that, you can use the **New-AzSentinelIncidentOwner** cmdlet to create the owner object. Finally, run the **Update-AzSentinelIncident** command.

Code example

```
Connect-AzureAD

$AzureADUserDetails = Get-AzureADUser -ObjectId "John@Contoso.com"
$IncidentID = "499d8110-790e-43d9-a9d9-a15f0539fcf0"

$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$IncidentOwnerDetails = @{
        AssignedTo = $AzureADUserDetails.DisplayName
        Email = $AzureADUserDetails.Mail
        Objectid = $AzureADUserDetails.ObjectId
        UserPrincipalName = $AzureADUserDetails.UserPrincipalName
}

$IncidentOwner = New-AzSentinelIncidentOwner @IncidentOwnerDetails

Update-AzSentinelIncident @AzureSentinelWorkSpaceInfo -IncidentID $IncidentID -
Owner $IncidentOwner -Status Active
```

Output

```
Id                    :
                        [redacted]
Name                  : 499d8110-790e-43d9-a9d9-a15f0539fcf0
Type                  : Microsoft.SecurityInsights/Incidents
Etag                  : "1700790d-0000-0c00-0000-5ff386260000"
AdditonalData         : Microsoft.Azure.Commands.SecurityInsights.Models.Incidents.PSSentinelIncidentAdditionalData
Classification        :
ClassificationComment :
ClassificationReason  :
CreatedTimeUTC        : 04.01.2021 14:38:08
Description           : Updated with PowerShell
FirstActivityTimeUtc  : 04.01.2021 14:28:05
IncidentNumber        : 80
IncidentUrl           :
                        [redacted]
                        0e-43d9-a9d9-a15f0539fcf0
Labels                : {}
LastActivityTimeUtc   : 04.01.2021 14:33:05
LastModifiedTimeUtc   : 04.01.2021 21:18:30
Owner                 : Microsoft.Azure.Commands.SecurityInsights.Models.Incidents.PSSentinelIncidentOwner
Severity              : Medium
Status                : Active
Title                 : Security Event log cleared
```

Auto-refresh incidents

	Incident id	Title	Alerts	Product names	Created time	Last update time	Owner
	83	Log Analytics Agent Health	1	Azure Sentinel	01/04/21, 11:46 PM	01/04/21, 11:46 PM	Unassigned
	80	Security Event log cleared	1	Azure Sentinel	01/04/21, 04:38 PM	01/04/21, 11:18 PM	Kaido Järvemets
	79	An event log was cleared	1	Azure Security Center	01/04/21, 04:30 PM	01/04/21, 04:30 PM	Unassigned

Updated incident owner

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Add a comment to an incident

Summary

Azure Sentinel allows us to add HTML based comments too. You can add tables or just formatted texts. The first example uses HTML tags, and the second one is just a regular comment without any formatting.

Code example 1

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$IncidentID = "499d8110-790e-43d9-a9d9-a15f0539fcf0"

New-AzSentinelIncidentComment @AzureSentinelWorkSpaceInfo -IncidentId $IncidentID
-Message "<h2>We can use HTML too!!!</h2>"
```

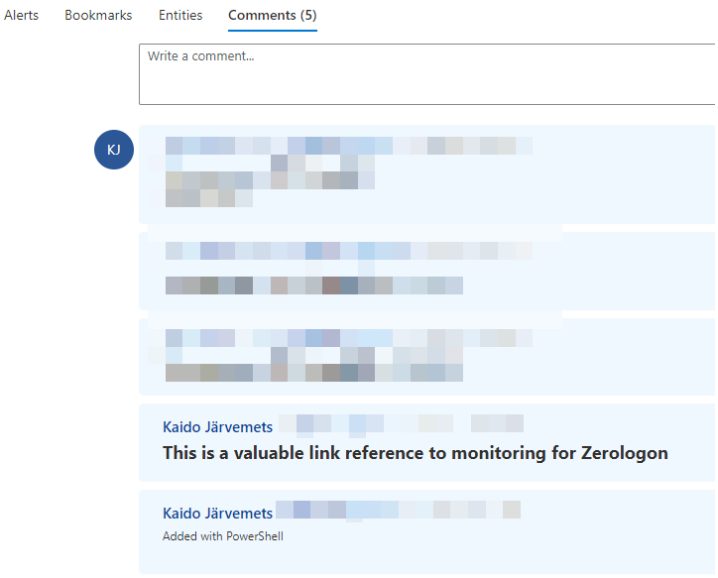
Code example 2

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$IncidentID = "499d8110-790e-43d9-a9d9-a15f0539fcf0"

New-AzSentinelIncidentComment @AzureSentinelWorkSpaceInfo -IncidentId $IncidentID
-Message "We need to investigate this ASAP"
```

Output


Alerts
Bookmarks
Entities
Comments (5)
Write a comment...
KJ
Kaido Järvemets
This is a valuable link reference to monitoring for Zerologon
Kaido Järvemets
Added with PowerShell

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Read incident comments

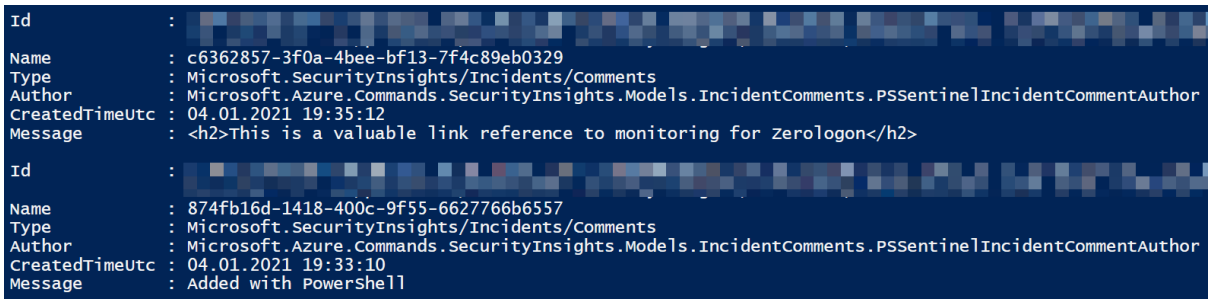
Summary

Code example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$IncidentID = "499d8110-790e-43d9-a9d9-a15f0539fcf0"
Get-AzSentinelIncidentComment @AzureSentinelWorkSpaceInfo -IncidentId $IncidentID
```

Output



Create an incident

Summary

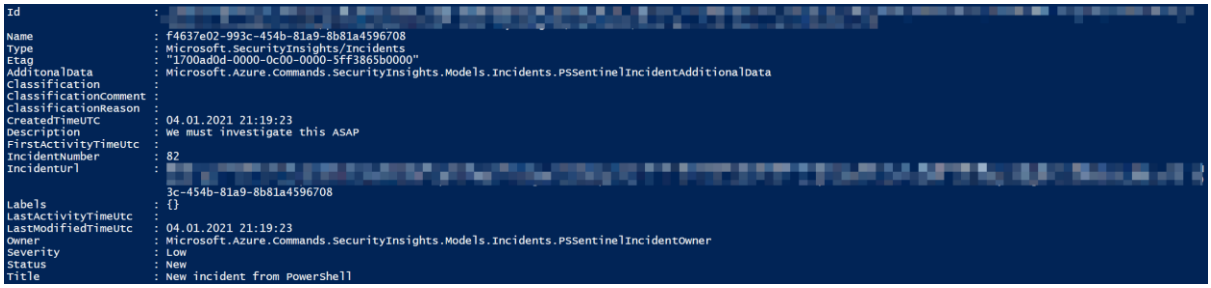
New-AzSentinelIncident cmdlet allows you to create new incidents. The strange thing is that the data source will be empty, and no investigation isn't available.

Code example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

New-AzSentinelIncident @AzureSentinelWorkSpaceInfo -Title "New incident from
PowerShell" -Description "We must investigate this ASAP" -Severity Low -Status
New
```

Output



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Remove incident

Summary

Remove-AzSentinelIncident removes the incident without any confirmations.

Code example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$IncidentID = "499d8110-790e-43d9-a9d9-a15f0539fcf0"
Remove-AzSentinelIncident @AzureSentinelWorkSpaceInfo -IncidentId $IncidentID
```

Output

The **Remove-AzSentinelIncident** cmdlet should return "**success**" if the removal was successful.

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Part 2 – Alert Rule Management using PowerShell

Get all enabled Analytics rules

Summary

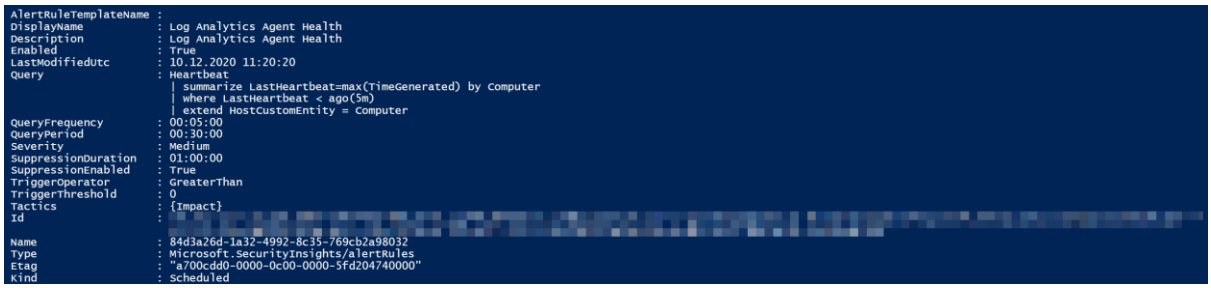
Get-AzSentinelAlertRule cmdlet lists all the enabled Analytics rules.

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

Get-AzSentinelAlertRule @AzureSentinelWorkSpaceInfo
```

Output



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Get Analytics rule action

Summary

Azure Sentinel allows you to configure automated response actions to your analytics rules. **Get-AzSentinelAlertRuleAction** lists the configured playbooks. Use the **Get-AzSentinelAlertRule** cmdlet to get the **AlertRuleID** parameter value. Check the **Name** property

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$AlertRuleId = "84d3a26d-1a32-4992-8c35-769cb2a98032"
Get-AzSentinelAlertRuleAction @AzureSentinelWorkSpaceInfo -AlertRuleId
$AlertRuleId
```

Output

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Get Analytics rule action detailed information

Summary

In the previous example, we queried the configured playbook. Still, if you want more information about the configured playbook, we need to execute the **Get-AzLogicApp** cmdlet. In the below code example, I'm also using the Split-Path cmdlet. That gives me the configured playbook name.

If you have multiple playbooks configured under the Analytics rule, you need to change the code slightly. Currently, the example assumes that you have only one playbook per the Analytics rule.

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$LogicAppsInfo = @{
    ResourceGroupName = "RG-PROD-IT-LOGIC-APPS-WE"
}

$AlertRuleId = "84d3a26d-1a32-4992-8c35-769cb2a98032"
$AlertRuleAction = Get-AzSentinelAlertRuleAction @AzureSentinelWorkSpaceInfo -
AlertRuleId $AlertRuleId

$AlertRuleActionName = $AlertRuleAction.LogicAppResourceId | Split-Path -Leaf
Get-AzLogicApp @LogicAppsInfo -Name $AlertRuleActionName
```

Output

You should see the following information:

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List all Analytics rule templates

Summary

Get-AzSentinelAlertRuleTemplate lists all the available Analytics rule templates.

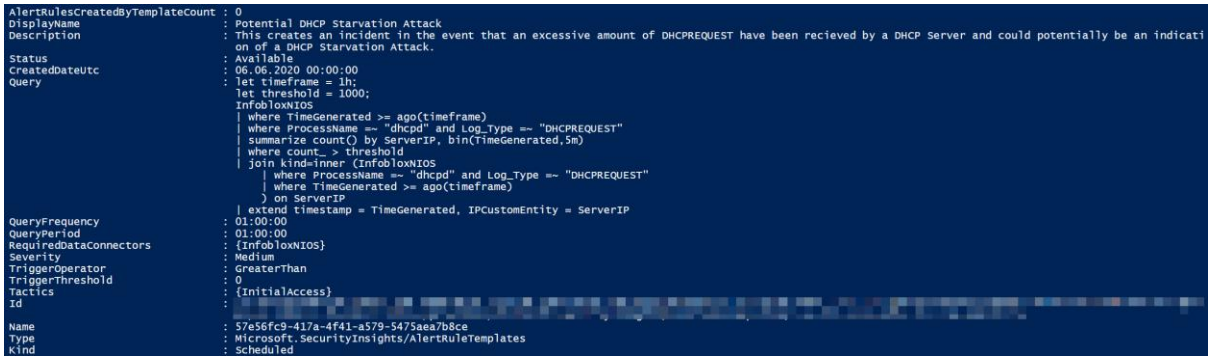
Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

Get-AzSentinelAlertRuleTemplate @AzureSentinelWorkSpaceInfo
```

Output

You should see the following information:



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Count all the Analytics rule templates

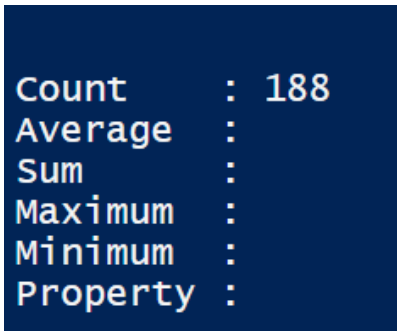
Summary

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

Get-AzSentinelAlertRuleTemplate @AzureSentinelWorkSpaceInfo | Measure-Object
```

Output



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List all Analytics rules and sort rules based on the Severity

Summary

In this example, we have selected out only four properties - **DisplayName**, **Status**, **CreatedDateUtc**, and **Severity**. Then we are sorting the results based on the **Severity** property.

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

Get-AzSentinelAlertRuleTemplate @AzureSentinelWorkSpaceInfo |
    Select-Object -Property DisplayName,Status,CreatedDateUtc,Severity |
        Sort-Object -Property Severity -Descending
```

Output

The above code block should give you the following output:

```
DisplayName                                                  Status    CreatedDateUtc      Severity
-----------                                                  ------    --------------      --------
Malware attachment delivered                                 Available 20.06.2020 00:00:00 Medium
Distributed Password cracking attempts in AzureAD            Available 11.02.2019 00:00:00 Medium
ADFS Key Export (Sysmon)                                     Available 19.12.2020 00:00:00 Medium
(Preview) TI map URL entity to Syslog data                   Available 27.08.2019 00:00:00 Medium
High Number of Urgent Vulnerabilities Detected               Available 20.06.2020 00:00:00 Medium
Potential Kerberoasting                                      Available 01.04.2019 00:00:00 Medium
Brute force attack against Azure Portal                      Available 02.04.2019 00:00:00 Medium
Malware Link Clicked                                         Available 20.06.2020 00:00:00 Medium
```

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List all Analytics rules and group by Severity

Summary

This code example counts different rule types based on the Severity property. Interestingly, we have 15 rules without any **Severity**.

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

Get-AzSentinelAlertRuleTemplate @AzureSentinelWorkSpaceInfo |
        Group-Object -Property Severity
```

Output

```
Count Name
----- ----
  107 Medium
   17 High
   49 Low
   15
```

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List all Analytics rules where Data Sources contains "SecurityEvents"

Summary

The following code example lists all the Analytics rules, where **the Data Source** contains "**SecurityEvents**". This example may be really handy when we are going to combine it with **Update-AzSentinelAlertRule** or **Update-AzSentinelAlertRuleAction** cmdlet. It allows us to filter out specific Analytics rules, and then we can enable all of them at once.

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

Get-AzSentinelAlertRuleTemplate @AzureSentinelWorkSpaceInfo |
    Where-Object {$PSItem.RequiredDataConnectors.ConnectorId -contains
"SecurityEvents"} |
        Select-Object -Property DisplayName,Status,CreatedDateUtc,Severity,Name
,RequiredDataConnectors |
            Sort-Object -Property Severity
```

Output

```
DisplayName             : ADFS Key Export (Sysmon)
Status                  : Available
CreatedDateUtc          : 19.12.2020 00:00:00
Severity                : Medium
Name                    : dcdf9bfc-c239-4764-a9f9-3612e6dff49c
RequiredDataConnectors  : {SecurityEvents}

DisplayName             : User account created and deleted within 10 mins
Status                  : Available
CreatedDateUtc          : 14.02.2019 00:00:00
Severity                : Medium
Name                    : 4b93c5af-d20b-4236-b696-a28b8c51407f
RequiredDataConnectors  : {SecurityEvents}
```

LAKEFOREST

Filter Analytics rules based on the CreatedDateUtc property

Summary

The good thing about Azure Sentinel is that Microsoft keeps adding new Analytics rules. This query prints out all the rules that have been added in the last 60 days.

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$TimeRange = (Get-Date).AddDays(-60)

$TimeRange = (Get-Date).AddDays(-60)
Get-AzSentinelAlertRuleTemplate @AzureSentinelWorkSpaceInfo |
    Where-Object {$PSItem.CreatedDateUtc -ge $TimeRange} |
        Select-Object -Property DisplayName,CreatedDateUtc,Severity |
            Sort-Object -Property CreatedDateUtc
```

Output

```
DisplayName                                                                                    CreatedDateUtc      Severity
-----------                                                                                    --------------      --------
First access credential added to Application or Service Principal where no credential was present 30.11.2020 00:00:00 High
New access credential added to Application or Service Principal                                30.11.2020 00:00:00 Medium
Interactive STS refresh token modifications                                                    04.12.2020 00:00:00 Low
Exchange workflow MailItemsAccessed operation anomaly                                          10.12.2020 00:00:00 Medium
Azure Active Directory PowerShell accessing non-AAD resources                                  11.12.2020 00:00:00 Low
Modified domain federation trust settings                                                      11.12.2020 00:00:00 High
Solorigate Network Beacon                                                                      17.12.2020 00:00:00 High
ADFS DKM Master Key Export                                                                     17.12.2020 00:00:00 Medium
Solorigate Defender Detections                                                                 17.12.2020 00:00:00 High
ADFS Key Export (Sysmon)                                                                       19.12.2020 00:00:00 Medium
Mail.Read Permissions Granted to Application                                                   19.12.2020 00:00:00 Medium
```

LAKEFOREST

List all Low Severity based Analytics rules

Summary

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

Get-AzSentinelAlertRuleTemplate @AzureSentinelWorkSpaceInfo |
    Where-Object {$PSItem.Severity -eq "Low"} |
        Select-Object -Property DisplayName,Severity
```

Output

```
DisplayName                                                          Severity
-----------                                                          --------
New user created and added to the built-in administrators group      Low
Azure Key Vault access TimeSeries anomaly                            Low
Squid proxy events for ToR proxies                                   Low
Azure Active Directory PowerShell accessing non-AAD resources        Low
SecurityEvent - Multiple authentication failures followed by a success Low
Monitor AWS Credential abuse or hijacking                            Low
PulseConnectSecure - Potential Brute Force Attempts                  Low
```

LAKEFOREST

Count Analytics rule template types

Summary

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

Get-AzSentinelAlertRuleTemplate @AzureSentinelWorkSpaceInfo |
    Group-Object -Property Kind |
        Select-Object -Property Count,Name
```

Output

```
Count Name
----- ----
  172 Scheduled
    8 Error
    7 MicrosoftSecurityIncidentCreation
    1 Fusion
```

LAKEFOREST

Create a new custom Analytics rule

Summary

The **New-AzSentinelAlertRule** cmdlet creates a new Analytics rule. This example creates a new "**Scheduled**" based Analytics rule. If you have your own custom rules, then it would be much easier for you to import new rules.

Please remember that this is just a sample Analytics rule, and do not use it in production!

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$NewAnalyticsRuleData = @{
    Scheduled = $True
    Enabled = $True
    Query = "Heartbeat
    | summarize LastHeartbeat=max(TimeGenerated) by Computer
    | where LastHeartbeat < ago(5m)
    | extend HostCustomEntity = Computer"

    DisplayName = "TEST - Log Analytics Agent Health"
    Description = "Get disconnected Log Analytics nodes"
    QueryPeriod = (New-TimeSpan -Hours 1)
    QueryFrequency = (New-TimeSpan -Hours 1)
    TriggerThreshold = 0
    TriggerOperator = "GreaterThan" #Equal, GreaterThan, LessThan, NotEqual
    Severity = "Medium" # Low, Medium, High
}

New-AzSentinelAlertRule @AzureSentinelWorkSpaceInfo @NewAnalyticsRuleData
```

Output

LAKEFOREST

Add a new automated response for the Analytics rule

Summary

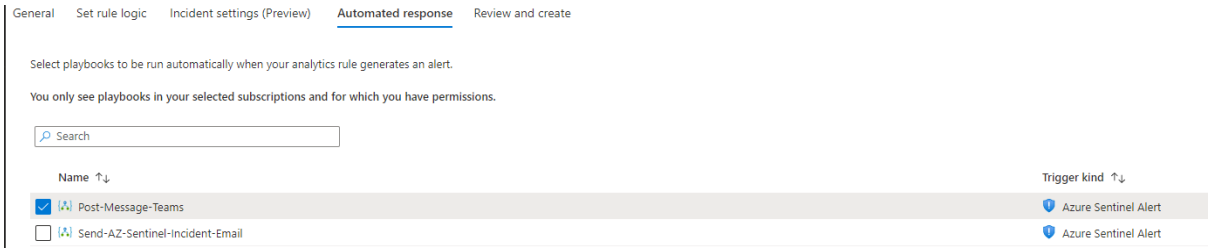
The **New-AzSentinelAlertRule** cmdlet does not allow us to add an automated response immediately, but we can use the **New-AzSentinelAlertRuleAction** cmdlet for that activity. Before that, we need to query our playbook information using the **Get-AzLogicApp** and **Get-AzLogicAppTriggerCallbackUrl** cmdlets. We can then pass that information to the **New-AzSentinelAlertRuleAction** cmdlet. Then, we should see the attached playbook under our Analytics rule.

In my case, all my Logic Apps are under one single resource group.

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$LogicAppsInfo = @{
    ResourceGroupName = "RG-PROD-IT-LOGIC-APPS-WE"
    Name = "Post-Message-Teams"
}

$LogicAppResourceID = Get-AzLogicApp @LogicAppsInfo
$LogicAppTriggerURI = Get-AzLogicAppTriggerCallbackUrl @LogicAppsInfo -
TriggerName "When_a_response_to_an_Azure_Sentinel_alert_is_triggered"

$AnalyticsRule = Get-AzSentinelAlertRule @AzureSentinelWorkSpaceInfo |
    Where-Object {$PSItem.DisplayName -eq "Log Analytics Agent Health"}

New-AzSentinelAlertRuleAction @AzureSentinelWorkSpaceInfo -AlertRuleId
$AnalyticsRule.Name -LogicAppResourceId ($LogicAppResourceID.Id) -TriggerUri
($LogicAppTriggerURI.Value)
```

Output



Configured playbook under the Analytics rule

LAKEFOREST

Disable enabled Analytics rule

Summary

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$AnalyticsRule = Get-AzSentinelAlertRule @AzureSentinelWorkSpaceInfo |
    Where-Object {$PSItem.DisplayName -eq "Log Analytics Agent Health"}

Update-AzSentinelAlertRule @AzureSentinelWorkSpaceInfo -AlertRuleId
$AnalyticsRule.Name -Disabled
```

Output

LAKEFOREST

Remove automated response from the Analytics rule

Summary

Code Example

```
$AzureSentinelWorkSpaceInfo = @{
    ResourceGroupName = "RG-PROD-IT-AZ-MANAGEMENT-TIER-0-WE"
    WorkspaceName = "LF-TIER-0-LOG-ANALYTICS-WE"
}

$AnalyticsRule = Get-AzSentinelAlertRule @AzureSentinelWorkSpaceInfo |
    Where-Object {$PSItem.DisplayName -eq "Log Analytics Agent Health"}

$AlertRuleAction = Get-AzSentinelAlertRuleAction @AzureSentinelWorkSpaceInfo -
AlertRuleId $AnalyticsRule.Name

Remove-AzSentinelAlertRuleAction @AzureSentinelWorkSpaceInfo -AlertRuleId
$AnalyticsRule.Name -ActionId $AlertRuleAction.Name
```

Output

The **Remove-AzSentinelAlertRuleAction** cmdlet should return "**success**" if the removal was successful.