



Windows PowerShell Get-Help on Cmdlet 'Invoke-ASCmd'

PS:\>Get-HELP Invoke-ASCmd -Full

NAME

Invoke-ASCmd

SYNOPSIS

Enables database administrators to execute an XMLA script, TMSL script, Data Analysis Expressions (DAX) query, Multidimensional Expressions (MDX) query, or Data

Mining Extensions (DMX) statement against an instance of Analysis Services.

SYNTAX

```
Invoke-ASCmd [-ApplicationId <String>] [-CertificateThumbprint <String>] [-ConnectionString <String>]
[-ConnectionTimeout <Int32>] [-Credential <PSCredential>]
[-Database <String>] [-ProgressAction <ActionPreference>] [-Query <String>] [-QueryTimeout <Int32>] [-Server <String>]
[-ServicePrincipal] [-TenantId <String>]
[-TraceFile <String>] [-TraceFileDelimiter <String>] [-TraceFileFormat {Csv | Text}] [-TraceLevel {High | Medium | Low |
Duration | DurationResult}] [-TraceTimeout
<Int32>] [-Variables <String[]>] [-Confirm] [-WhatIf] [<CommonParameters>]
```

```
Invoke-ASCmd [-ApplicationId <String>] [-CertificateThumbprint <String>] [-ConnectionString <String>]
[-ConnectionTimeout <Int32>] [-Credential <PSCredential>]
```

[-Database <String>] [-InputFile <String>] [-ProgressAction <ActionPreference>] [-QueryTimeout <Int32>] [-Server <String>] [-ServicePrincipal] [-TenantId <String>]
[-TraceFile <String>] [-TraceFileDelimiter <String>] [-TraceFileFormat {Csv | Text}] [-TraceLevel {High | Medium | Low | Duration | DurationResult}] [-TraceTimeout <Int32>] [-Variables <String[]>] [-Confirm] [-WhatIf] [<CommonParameters>]

Invoke-ASCmd [-ApplicationId <String>] [-CertificateThumbprint <String>] [-Credential <PSCredential>] [-ProgressAction <ActionPreference>] [-Server <String>]
[-ServicePrincipal] [-TenantId <String>] [-Confirm] [-WhatIf] [<CommonParameters>]

Invoke-ASCmd [-ApplicationId <String>] [-CertificateThumbprint <String>] [-Credential <PSCredential>] [-ProgressAction <ActionPreference>] [-Server <String>]
[-ServicePrincipal] [-TenantId <String>] [-Confirm] [-WhatIf] [<CommonParameters>]

DESCRIPTION

Enables database administrators to execute an XMLA script, TMSL script, Data Analysis Expressions (DAX) query, Multidimensional Expressions (MDX) query, or Data Mining Extensions (DMX) statement against an instance of Analysis Services.

The cmdlets execution of these queries or scripts within input files.

The script that is passed is an XMLA command and following commands are supported: Alter, Backup, Batch, BeginTransaction, Cancel, ClearCache, CommitTransaction,

Create, Delete, DesignAggregations, Drop, Insert, Lock, MergePartitions, NotifyTableChange, Process, Restore, RollbackTransaction, Statement (used to execute MDX queries and DMX statements), Subscribe, Synchronize, Unlock, Update, UpdateCells.

This script will also accept JSON commands designed to execute against a tabular database with compatibility mode 1200 or higher.

> `Module requirements: version 21+ on PowerShell 5.1; version 21 (recent preview) or version 22+ on PowerShell 7.x.`

PARAMETERS

-ApplicationId <String>

The application Id for the service principal.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-CertificateThumbprint <String>

The certificate thumbprint for the service principal.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-ConnectionString <String>

Specifies the connection string.

Note that other connection-level properties like Server, Database, etc. are ignored when this property is specified and therefore these properties must be

included in the connection string.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-ConnectionTimeout <Int32>

Specifies the number of seconds before the connection to the Analysis Services instance times out. The timeout value must be an integer between 0 and 65534. If 0 is specified, connection attempts do not time out.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-Credential <PSCredential>

If this parameter is specified, the user name and password passed will be used to connect to specified Analysis Server instance. If no credentials are specified default windows account of the user who is running the tool will be used.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-Database <String>

Specifies the database against which an MDX query or DMX statement will execute. The database parameter is ignored when the cmdlet executes an XMLA script, because the database name is embedded in the XMLA script.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-InputFile <String>

Identifies the file that contains the XMLA script, MDX query, DMX statement, or TMSL script (in JSON). You must specify a value for either the InputFile or the Query parameter when using Invoke-AsCmd.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-ProgressAction <ActionPreference>

Determines how PowerShell responds to progress updates generated by a script, cmdlet, or provider, such as the progress bars generated by the Write-Progress cmdlet. The Write-Progress cmdlet creates progress bars that show a command's status.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-Query <String>

Specifies the actual script, query, or statement directly on the command line instead of in a file.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-QueryTimeout <Int32>

Specifies the number of seconds before the queries time out. If a timeout value is not specified, the queries do not time

out. The timeout must be an integer
between 1 and 65535.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-Server <String>

Optionally specifies the server instance to connect to if not currently in the SQLAS Provider directory.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-ServicePrincipal [<SwitchParameter>]

Specifies that this connection is using service principal.

Required?	false
Position?	named
Default value	False
Accept pipeline input?	False
Accept wildcard characters?	false

-TenantId <String>

The tenant Id for the service principal.

Required?	false
Position?	named
Default value	None

Accept pipeline input? False

Accept wildcard characters? false

`-TraceFile <String>`

Identifies a file that receives Analysis Services trace events while executing the XMLA script, MDX query, or DMX statement. If the file already exists, it is

automatically overwritten (except for the trace files that are created by using the `-TraceLevel:Duration` and `-TraceLevel:DurationResult` parameter settings).

File names that contain spaces must be enclosed in quotation marks ("").

If the file name is not valid, an error message is generated.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

`-TraceFileDelimiter <String>`

Specifies a single character as the trace file delimiter when you specify csv as the format for the trace file that use the `-TraceFileFormat` parameter.

Default is | (pipe, or vertical bar).

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

`-TraceFileFormat <TraceFileFormatOption>`

Specifies the file format for the `-TraceFile` parameter (if this parameter is specified).

The default value is "Csv".

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-TraceLevel <TraceLevelOption>

Specifies what data is collected and recorded in the trace file. Possible values are High, Medium, Low, Duration, DurationResult.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-TraceTimeout <Int32>

Specifies the number of seconds the Analysis Services engine waits before ending the trace (if you specify the -TraceFile parameter).

The trace is considered finished if no trace messages have been recorded during the specified time period.

The default trace time-out value is 5 seconds.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-Variables <String[]>

Specifies additional scripting variables. Each variable is a name- value pair. If the value contains embedded spaces or control characters, it must be enclosed in

double-quotation marks. Use a PowerShell array to specify multiple variables and their values.

Required?	false
Position?	named
Default value	None
Accept pipeline input?	False
Accept wildcard characters?	false

-Confirm [<SwitchParameter>]

Prompts you for confirmation before running the cmdlet.

Required?	false
Position?	named
Default value	False
Accept pipeline input?	False
Accept wildcard characters?	false

-WhatIf [<SwitchParameter>]

Shows what would happen if the cmdlet runs. The cmdlet is not run.

Required?	false
Position?	named
Default value	False
Accept pipeline input?	False
Accept wildcard characters?	false

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer, PipelineVariable, and OutVariable. For more information, see

about_CommonParameters (<https://go.microsoft.com/fwlink/?LinkID=113216>).

INPUTS

PObject

OUTPUTS

string

NOTES

Supported on all Analysis Services instances including PowerBI Premium

----- Invoke discover -----

```
Invoke-ASCmd -Server:localhost -Query "<Discover
xmlns='urn:schemas-microsoft-com:xml-analysis'><RequestType>DBSCHEMA_CATALOGS</RequestType><Restrictions
/><Properties /></Discover>"
```

----- Invoke discover 2 -----

```
Invoke-ASCmd -Database "Adventure Works DW 2008R2" -Query "<Discover
xmlns='urn:schemas-microsoft-com:xml-analysis'><RequestType>DISCOVER_DATASOURCES</RequestType><Restrictions></Restrictions><Properties></Properties></Discover>"
```

----- Invoke select -----

```
Invoke-ASCmd -Database "Adventure Works DW 2008R2" -Query "SELECT {[Measures].[Internet Sales Amount]} ON
COLUMNS, BOTTOMCOUNT(NONEMPTY(DESCENDANTS(
[Customer].[Customer Geography].[All Customers], [Customer].[Customer Geography].[Customer]), ( [Measures].[Internet
Sales Amount] ) ), 10, ( [Measures].[Internet
Sales Amount] )) ON ROWS FROM [Adventure Works] WHERE ( [Date].[Calendar].[Calendar Year].&[2008] )"

```

----- Invoke select 2 -----

```
Invoke-ASCmd -Database "Adventure Works DW 2008R2" -Query "SELECT MODEL_CATALOG, MODEL_NAME,
ATTRIBUTE_NAME, NODE_NAME FROM [Forecasting].CONTENT"

```

----- Invoke with xmla file -----

```
Invoke-ASCmd -InputFile C:\MyFolder\DiscoverConnections.xml

```

<# DiscoverConnections.xml is as follows:

```
<Discover xmlns="urn:schemas-microsoft-com:xml-analysis">
  <RequestType>DISCOVER_CONNECTIONS</RequestType>
  <Restrictions />
  <Properties>
    <PropertyList>
      <Content>Data</Content>
    </PropertyList>
  </Properties>
</Discover>

```

#>

RELATED LINKS

Online Version: <https://learn.microsoft.com/powershell/module/sqlserver/invoke-ascmd>