**PostgreSQL + Info-Gathering:**

**CMF – PostgreSQL Info-Gathering Automation for Windows - User Guide**

**For Script:**

**CMF-PostgreSQL\_WindowsServer\_Info\_Gathering.ps1**



**Document Summary**

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**Revision History**

This section represents the change history of the document. Revisions of the document must be tracked by identifying a new version number, the date it was modified, the person making the change, and the reason for the change.

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# Executive Summary

## Objective

This document provides the procedure/steps to execute the Automation script (CMF-PostgreSQL\_WindowsServer\_Info\_Gathering.ps1) which gathers the PostgreSQL instance details.

Note: The values present in the Screenshots are demo values. Please change the values as Appropriate.

# Prerequisites for PostgreSQL Server Info gathering - Execution

## Non-Mission-Critical system

* **Don't install and run the Automation scripts on any mission-critical production server**

## Operating System Requirements

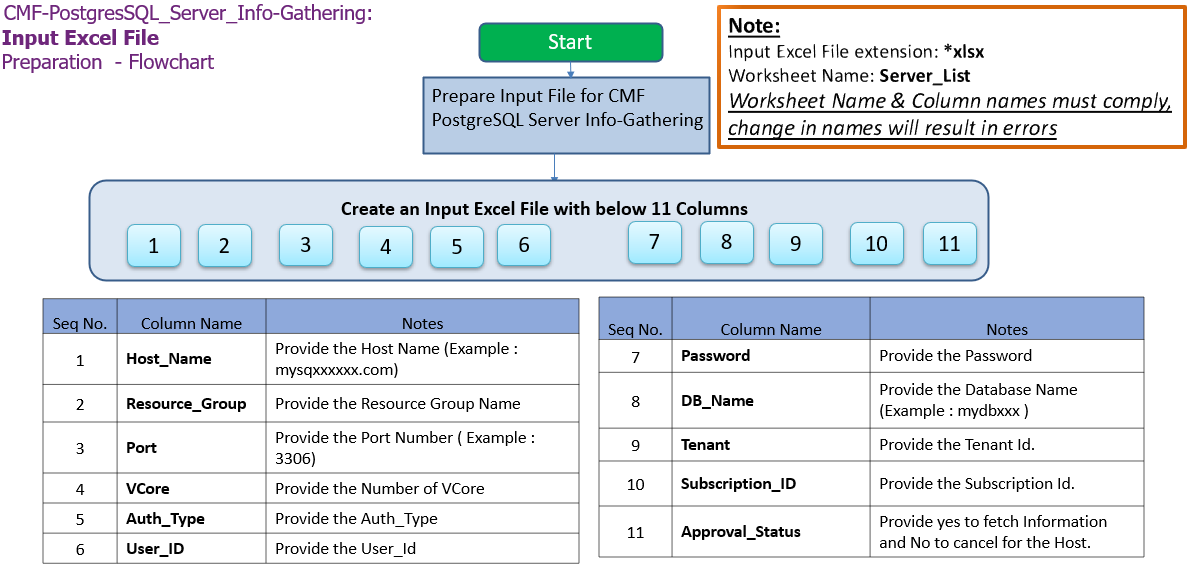
* Supported Operating System

Windows 10, Windows Server 2012, Windows Server 2012 R2 and above

## Software requirements

* pgAdmin 4 v5.0 and above.
* Windows PowerShell 4.0 and above.
* Powershell Module(ImportExcel)

## Input Excel File



**Important Notes:**

* PostgreSQL Client is required to establish Connectivity to PostgreSQL Servers.
* This script is based on the Excel file named   
  ‘**CMF-PostgreSQL\_Server\_Input\_file.xlsx**’.
* Worksheet name in the INPUT EXCEL FILE must be ‘**Server\_List’.**
* **Column Name must be kept as shown below, change in names will result in errors**
* **Values in the column must be correct, incorrect values will also result in errors**
* **Port, tenant and Subscription\_ID columns are Optional.**
* If there is only one server/instance to be assessed using the script, please add a duplicate line with same server information to avoid an input related issue

1. **Columns for Input File: CMF-PostgreSQL\_Server\_Input\_file.xlsx**

|  |  |
| --- | --- |
| **Column Name** | **Note** |
| **Host\_Name** | **Provide Host Name (Example: localhost)** |
| **Resource\_Group** | **Provide the Resource Group Name (Optional)** |
| **Port** | **Provide Port Number (Example: 3306)** |
| **VCore** | **Provide the Number of VCore** |
| **Auth\_Type** | **Provide the Auth\_Type** |
| **User\_ID** | **Provide the User\_ID** |
| **Password** | **Provide the Password** |
| **DB\_Name** | **Provide Database Name (Example:mysqldb)** |
| **Tenant** | **Azure Subscription tenant ID (Optional)** |
| **Subscription\_ID** | **Azure Subscription ID (Optional)** |
| **Approval Status** | **Provide YES to fetch the information and NO to exclude the host.** |

|  |  |  |
| --- | --- | --- |
| **Seq.No** | **File** | **Note** |
| 1 |  | Sample: **CMF-PostgreSQL\_Server\_Input\_file.xlsx** |

## Windows User credentials

Windows user must have privileges to install the following software& PowerShell module:

* ImportExcel

## Storage Space & Folder read write permission

* Windows user must have a privilege to create folder and write the assessment results to that folder
* Minimum disk free space required is 1GB

## Internet access

* Connectivity must be available from the client to the Target Systems and Internet.

## Without Internet access to the URLs below

**Note:** Follow the instructions below to download all the software manually to a server where internet connectivity is enabled. Once all the software is downloaded, move all of them to the server where CMF - PostgreSQL Server Info Gathering automation script will be executed and install all of them one by one.

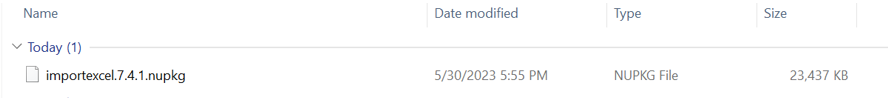
### Installing ImportExcel Module

1. Open Browser and navigate to the link <https://www.powershellgallery.com/packages/ImportExcel/7.4.1>
2. Click On Manual Download

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Description automatically generated with medium confidence

1. Now Click on Download the raw nupkg file.
2. The file will be downloaded to Downloads folder

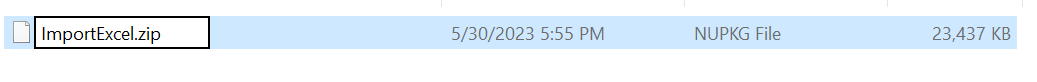


1. Right Click Properties-> and unblock the file -> Apply.

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1. Rename the file as ImportExcel.zip.



1. Extract the zip RightClick-> Extract All

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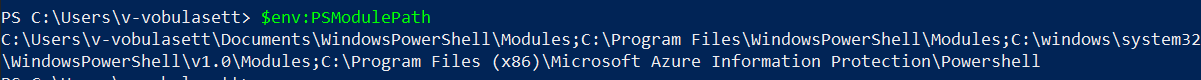
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1. Goto Run Button -> Type Powershell and click on -> Windows PowerShell

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1. Run the command. $env:PSModulePath which will list all the Environment variable paths for PowerShell Module



1. Navigate to the path which reflects with Program Files or ProgramFiles(X86) to the Respective modules Folder via FileExplorer and paste the extracted file (i.e. Step7)

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Execute the below command from windows PowerShell as Administrator.

* **Import-Module ImportExcel**



## PowerShell Version, Modules & Execution policy

Execute the below commands from windows PowerShell as Administrator.

1. To find the PowerShell Version

* Get-Host

Graphical user interface, text

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1. Set the PowerShell execution policy

* **Set-ExecutionPolicy Unrestricted -Scope CurrentUser**



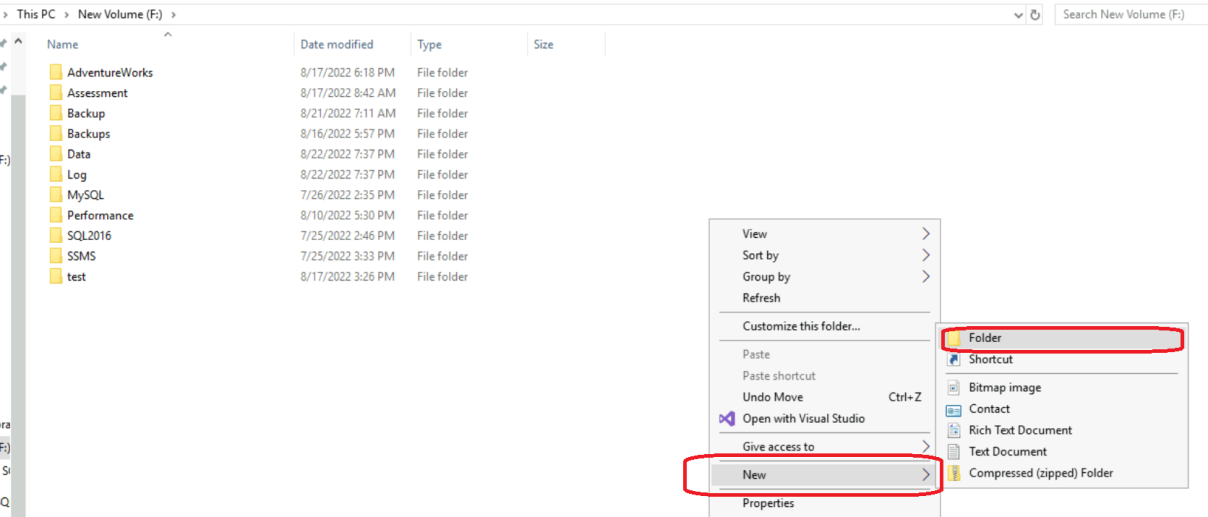
## Connectivity

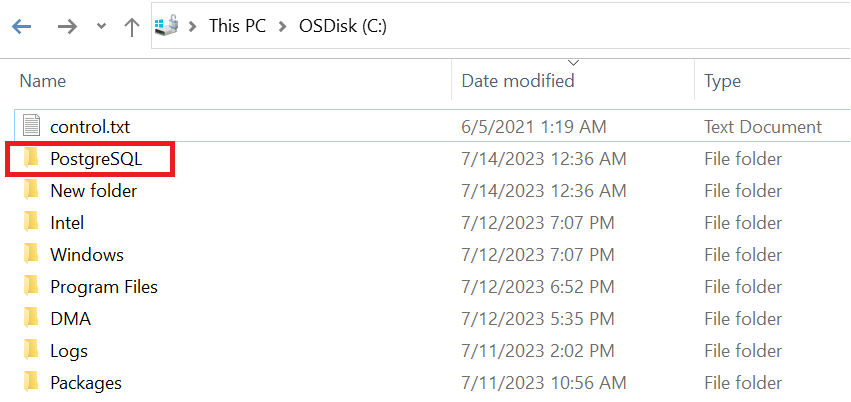
* Connectivity must exist between the SYSTEM which runs the PostgreSQL Info Gathering Automation script and PostgreSQL Server.

# Copying Script

## Folder Name

* Login into a Non-Mission-Critical system (i.e.**NOT**on any production server) from where the PostgreSQL Automation is to be run
* Create a folder C:\PostgreSQL (you may choose any available drive)





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## Script and Input file

* Copy the folder named PostgreSQL\_Templates under the folder created in the previous step. For example: If PostgreSQL was the folder created in the previous step, then copy the PostgreSQL\_Templates under the PostgreSQL Folder.
* Copy the content to a file named CMF-PostgreSQL\_WindowsServer\_Info\_Gathering.ps1 under the folder created in the previous step. For example: If PostgreSQL was the folder created in the previous step, then copy the file CMF-PostgreSQL\_WindowsServer\_Info\_Gathering.ps1 under the PostgreSQL Folder.



A computer screen shot of a computer program

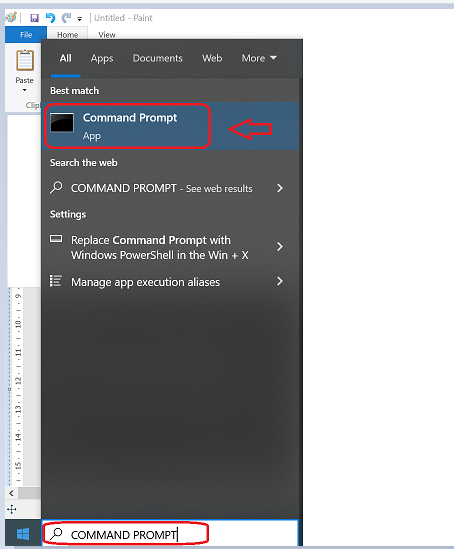
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* Ensure the connectivity exists between the SYSTEM which runs the PostgreSQL Info Gathering Automation script and PostgreSQL Server.
* Once the input file is prepared Copy the file (**CMF-PostgreSQL\_Server\_Input\_file.xlsx**) under the folder created in the previous step (C:\PostgreSQL)

# Executing the Script

## PostgreSQL Info Gathering execution

### Open windows Command prompt as **Administrator**



* Change the working directory/folder to the folder where you created/copied the script (CMF-PostgreSQL\_WindowsServer\_Info\_Gathering.ps1) in previous step
* Enter the following command at the windows command prompt.

**Powershell.exe -ExecutionPolicy RemoteSigned -File .\CMF-PostgreSQL\_WindowsServer\_Info\_Gathering.ps1**



## CMF-PostgreSQL\_WindowsServer\_Info\_Gathering – script execution

* To perform PostgreSQL server Information gathering, enter option ‘1’.

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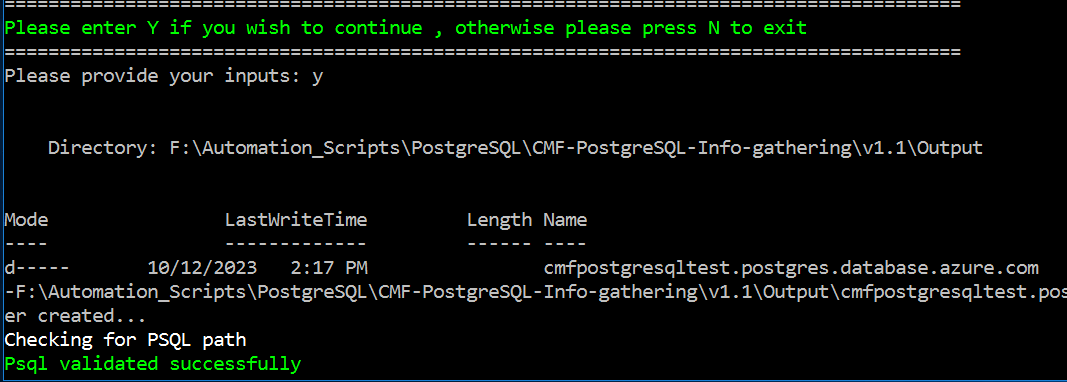
**Note :** After triggering the automation all the support folders( Logs, Output, Downloads etc. ) will be created automatically by the automation script, MySQL path is validated and it will ask user to proceed with the execution of the script

A screenshot of a computer program

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* The Automation Script checks for ImportExcel PowerShell module, if not found it will automatically download and install.
* The script then Validates the list of Hosts to proceed with execution.
* Next, enter “Y” to continue with PSQL path Validation.

Note: Ensure you add the location of psql.exe to your Path environment variables



* Enter “Y” to proceed with PostgreSQL Server Info-Gathering.

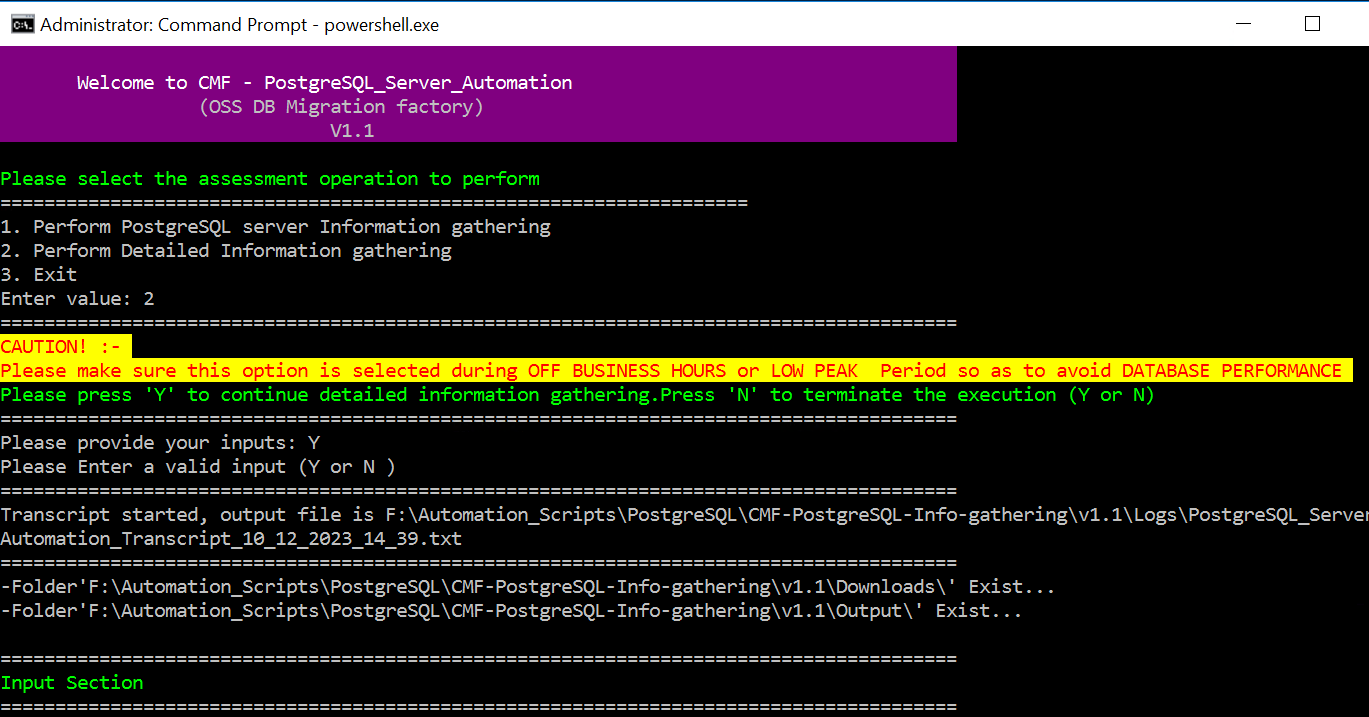
A screenshot of a computer program

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* To perform Detailed PostgreSQL server Information gathering, enter option ‘2’

CAUTION! :-

Please make sure this option is selected during OFF BUSINESS HOURS or LOW PEAK Period so as to avoid DATABASE PERFORMANCE



* The Automation Script checks for ImportExcel PowerShell module, if not found it will automatically download and install.
* The script then Validates the list of Hosts to proceed with execution as shown below.

A screenshot of a computer

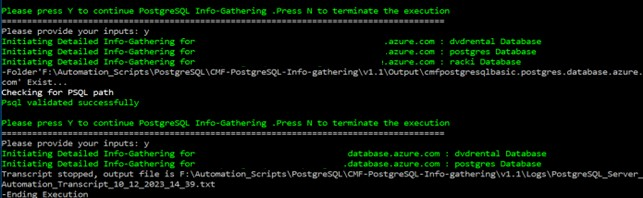
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* Next, enter “Y” to continue with PSQL path Validation.

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* Enter “Y” to proceed with Detailed PostgreSQL server Info-Gathering



### Export Info-Gathering details and generating Excel Output files

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