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| **Topic:** | Script to export teams settings from user |

Document Control

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| **Rev** | **Date** | **Changes Made** | **By (User)** |
| 1.0 | 25/09/2024 | Initial document creation | Mathew Gallehawk |

# Requirements

* Requires powershell reams module, will install if missing
* Powershell in Admin mode.
* execution policy set to unrestricted

# Process

**Steps to Use the Script**

1. **Open PowerShell**: Launch PowerShell with administrative privileges.
2. **Navigate to Script Location**: Change the directory to where the script is located.   
   For example: cd "C:\Path\To\Script"
3. **Run the Script**: Execute the script by typing its name.   
   For example: .\get-users-in-teams-chanel-revised.ps1
4. **If the required modules are not detected follow the prompts to install them**.
5. **Once the modules are installed you will be required to add the email of the user in question**.

The results will output in the folder the script is in

# Script Review

his PowerShell script is designed to extract Microsoft Teams user settings and output them to a file. Below is a detailed explanation of each part of the script:

**Script Overview**

* **Purpose**: Extract Teams user settings and save them to a file.
* **Author**: Mathew Gallehawk
* **Modules Required**: [PowerShellGet](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html), [MicrosoftTeams](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html" \o ")

**Functions**

1. **check\_module($module)**
   * **Purpose**: Checks if a specified module is installed. If not, it installs the module.
   * **Parameters**: [$module](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html) - The name of the module to check.
   * **Process**:
     + Uses [Get-Module](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html) to check if the module is available.
     + If not found, installs the module using [Install-Module](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html).
2. **module\_setup**
   * **Purpose**: Ensures that all required modules are installed.
   * **Process**:
     + Defines an array of required modules.
     + Iterates through each module and checks its presence using [check\_module](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html" \o ").
3. **get\_teams\_user**
   * **Purpose**: Prompts the user to enter an email address and validates if the user exists in Teams.
   * **Process**:
     + Continuously prompts for an email until a valid user is found or the user types "exit".
     + Uses [Get-CsOnlineUser](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html) to check if the user exists.
4. **teamsCallingSettings($userEmail)**
   * **Purpose**: Retrieves the calling settings for a specified Teams user.
   * **Parameters**: [$userEmail](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html) - The email of the user.
   * **Returns**: The calling settings of the user.
5. **teamsUserPolicyAssignemt($userEmail)**
   * **Purpose**: Retrieves the policy assignments for a specified Teams user.
   * **Parameters**: [$userEmail](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html) - The email of the user.
   * **Returns**: The policy assignments of the user.
6. **teamsUserPolicy($userEmail)**
   * **Purpose**: Retrieves the policy package for a specified Teams user.
   * **Parameters**: [$userEmail](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html) - The email of the user.
   * **Returns**: The policy package of the user.
7. **outputToFile($outfile, $data)**
   * **Purpose**: Outputs data to a specified file.
   * **Parameters**:
     + [$outfile](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html) - The file path to output the data.
     + [$data](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html) - The data to be written to the file.
8. **bail**
   * **Purpose**: Exits the script gracefully.
   * **Process**:
     + Displays a thank you message.
     + Pauses for 2 seconds.
     + Exits the script.
9. **main**
   * **Purpose**: The main function that orchestrates the script's operations.
   * **Process**:
     + Displays a welcome message.
     + Checks and installs required modules using [module\_setup](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html" \o ").
     + Connects to Microsoft Teams using [Connect-MicrosoftTeams](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html).
     + Prompts the user to enter an email and validates it using [get\_teams\_user](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html" \o ").
     + Constructs a file path for output.
     + Retrieves user settings using [teamsCallingSettings](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html" \o "), [teamsUserPolicyAssignemt](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html" \o "), and [teamsUserPolicy](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html" \o ").
     + Outputs the collected data to the file.
     + Disconnects from Microsoft Teams using [Disconnect-MicrosoftTeams](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html).

**Execution**

* The script starts by calling the [main](vscode-file://vscode-app/c:/Users/e103719/AppData/Local/Programs/Microsoft%20VS%20Code/resources/app/out/vs/code/electron-sandbox/workbench/workbench.html) function.
* It ensures all prerequisites are met, connects to Teams, collects user data, and outputs it to a file before disconnecting and exiting.

**Usage**

* Run the script in a PowerShell environment.
* Follow the prompts to enter the user's email.
* The script will handle the rest, ensuring all necessary modules are installed and the data is collected and saved properly.