# **Tableau Report Export Automation**

## Summary:

The Tableau Report Export Automation is a method of sending automated emails that contain a snapshot of a Tableau view. It operates by calling Tableau Commands (tabcmd) in a PowerShell script. The script is powered by a CSV file that contains relevant information about the report and email parameters.

## Operation:

To operate the script, take the following actions:

1. Open a PowerShell instance
2. Enter the script filepath and the report name of the report you would like to export:
   1. ex: "full\_path\_to\_script" "report\_name"
   2. ex: C:\Ops\_Automation\tableau\_export\tab\_cmd\_scripts\src\report\_export.ps1 ImageProcessingDaily\_OriginalView
3. Check your email!

## Maintenance:

Maintaining the process is relatively straightforward. All that is required is updating the report\_map.csv spreadsheet with desired information.

The report\_map.csv file contains the following fields:

* report\_name
* report\_url
* report\_title
* view\_name
* export\_name
* sender\_email
* email\_subject
* to\_list cc\_list bcc\_list

Field integrity is important for the script to run correctly.

* report\_name:
  + This field should contain the Report Title and Report View names separated by an underscore. These values can be found from the URL of the report view.
    - Ex: “ImageProcessingDaily\_OriginalView”
* report\_url:
  + This field should be the full URL link copied from a web browser.
    - Ex: <https://prtableau.e-470.com/#/views/ImageProcessingDaily/OriginalView?:iid=1>
* report\_title:
  + This field should be a human-legible version of the report title as it appears on the report.
    - Ex: “Image Processing Daily”
* view\_name:
  + This field should be a human-legible version of the view name as it appears on the report.
    - Ex: “Original View”
* export\_name:
  + This value is extracted from the URL. This is especially necessary to maintain data integrity for the tabcmd functions to work. This value should always start with the word, “views” and end with the view name.
    - Ex: “views/ImageProcessingDaily/OriginalView”
* sender\_email:
  + This value is presently hard-coded, but is built out for potential future use if it is desired to send mail from separate accounts.
    - Ex: [noreply@e-470.com](mailto:noreply@e-470.com)
* email\_subject:
  + This value should be human-legible text that you wish to appear in the email subject line.
    - Ex: “Image Processing Daily Snapshot”
* to\_list:
  + This field should be populated with the list of emails that you wish to list in the “To” line. If multiple email addresses should appear here, separate them with a semicolon “;”.
    - Ex: “kbasse@e-470.com”
    - Ex: “kbasse@e-470.com;jivy@e-40.com”
* cc\_list:
  + This field should be populated with the list of emails that you wish to list in the “CC” line. If multiple email addresses should appear here, separate them with a semicolon “;”.
    - Ex: “kbasse@e-470.com”
    - Ex: “kbasse@e-470.com;jivy@e-40.com”
* bcc\_list:
  + This field should be populated with the list of emails that you wish to list in the “BCC” line. If multiple email addresses should appear here, separate them with a semicolon “;”.
    - Ex: “kbasse@e-470.com”
    - Ex: “kbasse@e-470.com;jivy@e-40.com”

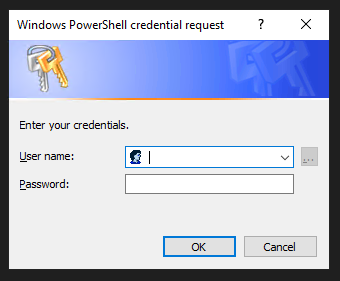
## Password Encryption:

The automation script populates an encrypted password while passing the Tableau Commands. While you can encrypt any username and password, this functionality is currently limited to the user account that is running the script. This means that the encrypted account information may be for the “!svc.tableau” username, but only the account that ***input*** that information can run the script.

This tutorial will walk you through the process of re-creating the encrypted password:

### Password Encryption Steps

* 1. Navigate to the password encryption folder in the “prTableau” server. There you will see all the files that relate to the password encryption process:
     1. C:\Ops\_Automation\tableau\_export\tab\_cmd\_scripts\src\tabcmd\_password\_encryption
  2. To set a new encrypted password, open a PowerShell instance and run the following command:
     1. powershell C:\Ops\_Automation\tableau\_export\tab\_cmd\_scripts\src\tabcmd\_password\_encryption\Set\_EncryptedPassword.ps1 C:\Ops\_Automation\tableau\_export\tab\_cmd\_scripts\src\tabcmd\_password\_encryption\encrypted\_password.txt
     2. This command will overwrite the existing password file and replace it with a new encrypted password.
  3. Upon running the command, you will be prompted to input the new credentials:



* 1. Once credentials are entered, the file will reflect the updated password and it will be registered under the account that logged them.

## Task Scheduling:

* To create a new automated email task, connect to the “prTableau” server, open the Task Scheduler, and create a new task.
  + 1. A screenshot of a computer

       Description automatically generated
    2. Input the name, description and run options of your preference. Recommendation is to use the name of the Report Title ***and*** the Report View in the task name.
* Next, add triggers:
  + 1. A screenshot of a computer program

       Description automatically generated
    2. Input the name, description and run options of your preference. Recommendation is to use the name of the Report Title ***and*** the Report View in the task name.
* Define the Task Action:
  + 1. A screenshot of a computer program

       Description automatically generated
    2. Select “Start a Program” and identify the report\_export.ps1 script full path in the “Program/Script” input.
    3. Add the name of the report in the “Add arguments” input. This triggers the script to run a specific report and will fail if not entered.
    4. The report\_name entered in the arguments should match **exactly** the report\_name listed in the report\_map.csv spreadsheet.