

# R Plugin Overview

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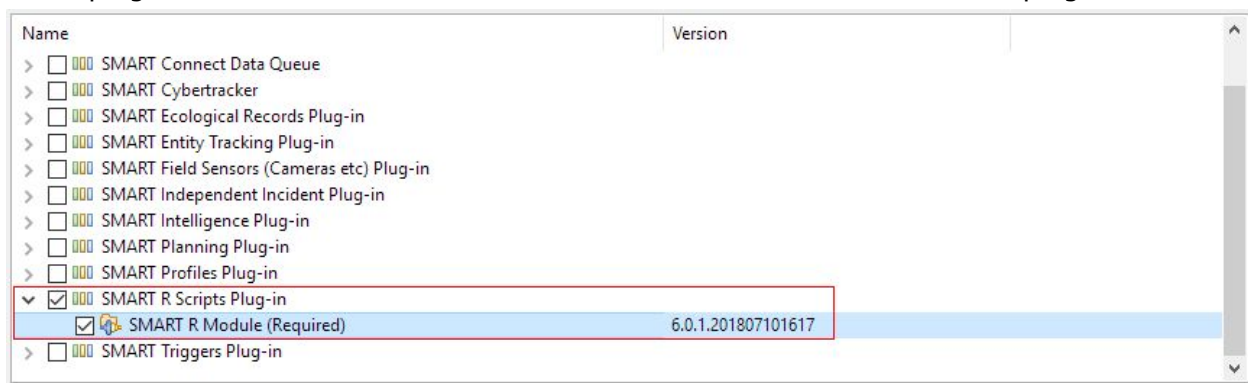
## Overview

The R Plugin allows users to run R scripts directly from within SMART. Results of SMART queries can be sent directly to an R script and the results of the script viewed within SMART.

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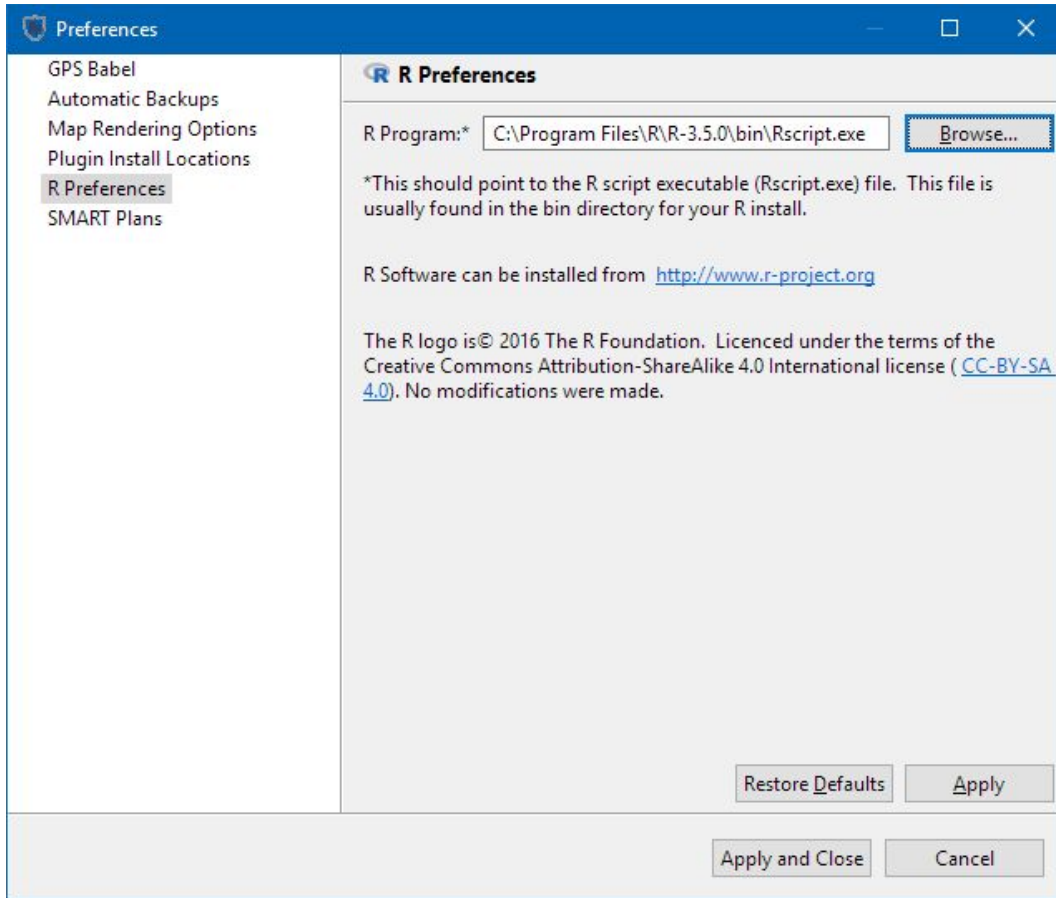
## Installation

The R plugin for SMART is installed in the same manner as all other SMART plugins.



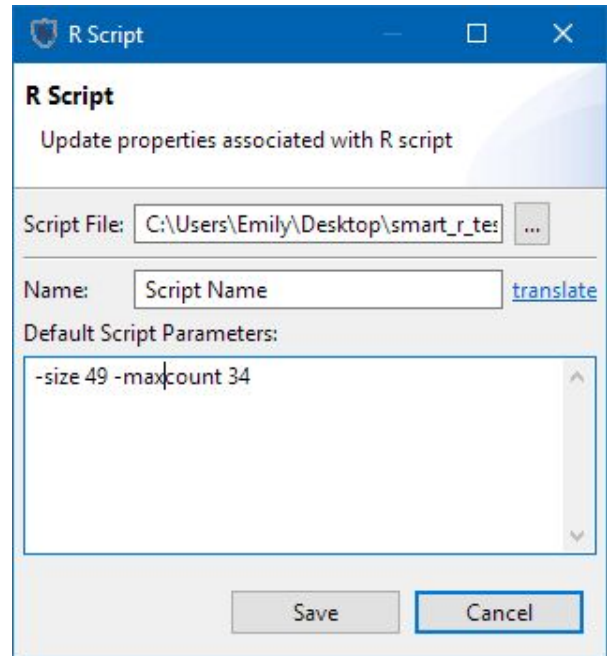
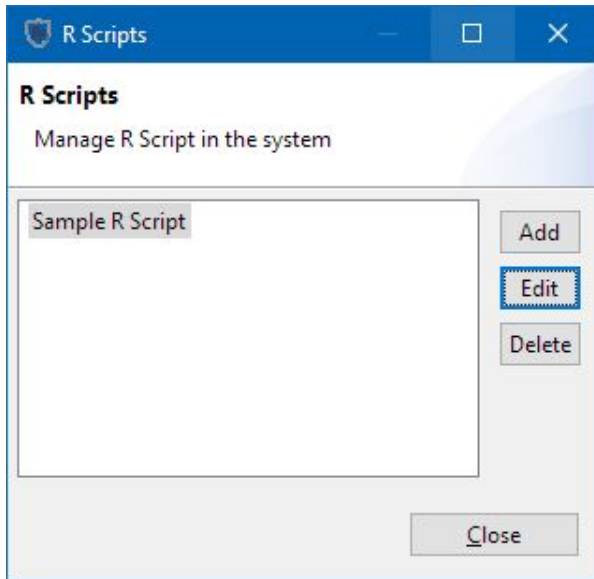
The R software does not come with SMART. You must install this software separately. The software can be downloaded from <https://www.r-project.org>.

Once installed you must point SMART to the location of your R install. This is done via the 'File'-'>'System Preferences' menu. Select the 'R Preferences' page and on this page point the R Program to the location of the Rscript.exe file on your computer. This information is not shared via Connect so if you use Connect you will have to do this on each computer that uses SMART.



## Configuring R Scripts

Before using R Scripts in SMART you must import the script into SMART. To import scripts use the 'Query' -> 'Configure R Scripts' menu. Using this dialog you can import R scripts into SMART, give them names, and default parameters.



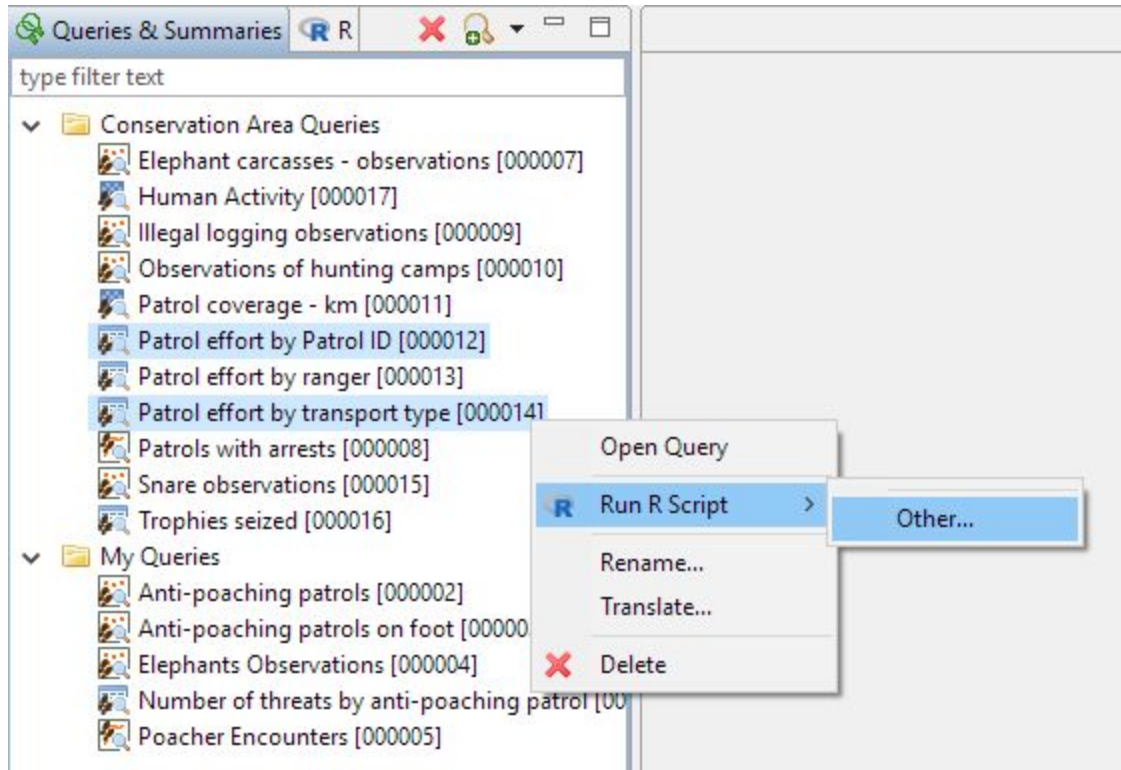
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## Running R Scripts

R Scripts are run from the query perspective.

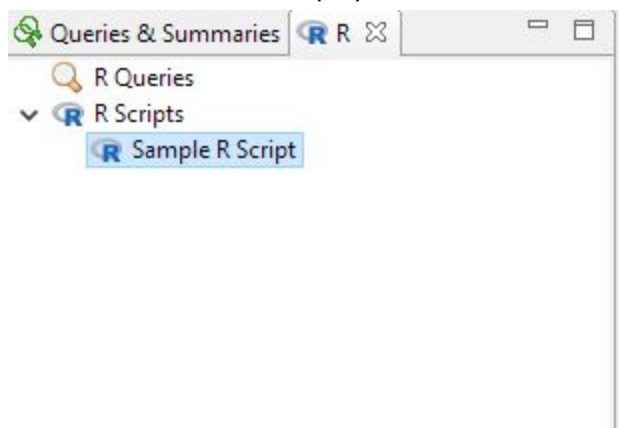
### Running From Query

R Scripts can be configured directly from a set of queries. Select the queries from the query list, right click and select 'Run R Script'. The first time you will have to select 'Other' and select the script. Subsequent times the last run R script will appear in this menu. This will open the R script editor.



### Running R List View

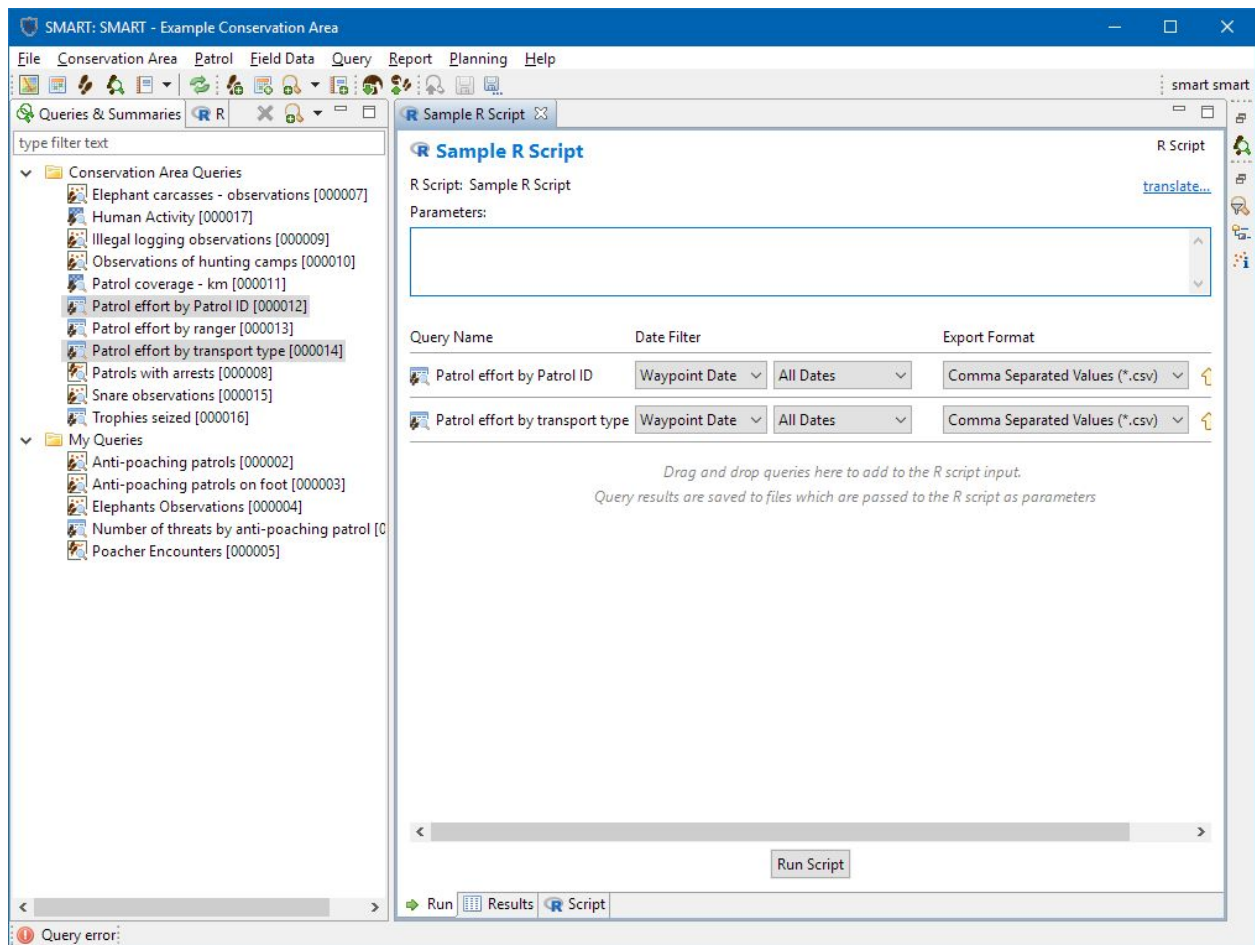
Double click on the script you want to run from the R view (next to the Query List).



## R Script Editor

Once you open an R script the editor will be displayed. On the "Run" tab you configure the R script parameters, and the queries that should be run and provided as input to the script. On the "Results" tab you will see the output of running the queries. On the "Script" tab you can see the script and open it for editing.

When running the script each query is executed, the results saved to a temporary file, and the file provided as a parameter to the script. The Results tab will show the exact command run which you can use for debugging purposes.



Once you've configured your R script with the queries, date ranges and formats you can save this configuration to re-run at a later date. These saved R "queries" appear in the R list view.

Queries & Summaries R R

- ▼ R Queries
  - Patrol Location Analysis
- ▼ R Scripts
  - Sample R Script

*Saved R "queries"*

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R Patrol Location Analysis R Sample R Script

### R Patrol Location Analysis

R Script: Sample R Script

Parameters: