R Scripts

Contents

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Chapter 1

Overview

Topics:

Overview of the R Script Module

The R script tool in GE Digital APM provides a way for you to utilize the R programming language to create scripts that can receive data from inputs, make calculations, and then return one or more outputs. These R scripts can then be used within Policy Designer to expand the functionality of policies.

R scripts can be as simple or as complex as you need them to be, depending on the data that you want the script to calculate. For instance, a simple R script may calculate and return a value based only on two inputs. A more complex R script might utilize ten inputs, and have ten different output values. This documentation does not cover the process of developing R code.

R Scripts in Policies

R scripts can be used within Policy Designer to expand the functionality of policies. After you create and save an R script, you can use the R Script nodes in Policy Designer to pass values into the R script, and receive calculated values out of the R script.

The parameters that you define in the R script determine how the R Script node in Policy Designer will behave. Each parameter that you specify as an input appears as a field in the **Properties** window for the R Script node. You can then use standard policy options to provide values to the parameters in the R script. Each parameter that you specify as an output determines what values subsequent nodes in the policy model can use for additional calculations or actions.

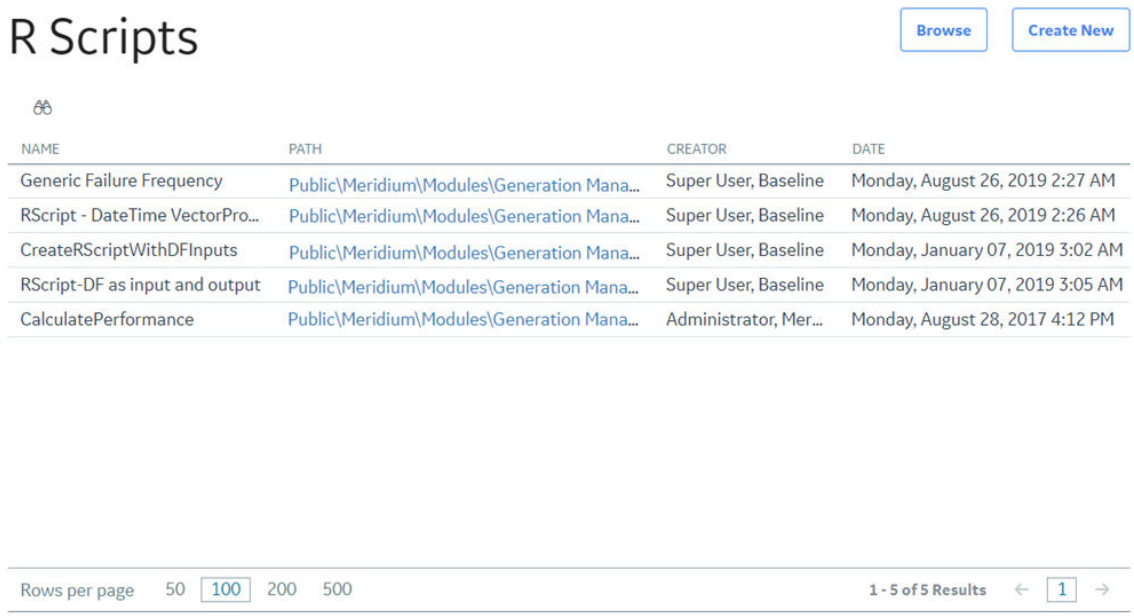
Note: Before you can execute or validate a policy that includes an R node, you must complete the R server installation and configuration steps.

Access an R Script

Procedure

1. In the module navigation menu, select **Tools** > **R Scripts**.

   The **R Scripts** page appears.



Note: Only R scripts created or accessed from the **R Scripts** page appear in this list. The 25 most recently accessed R scripts will appear in the list.

2. Choose one of the following:
   - Select an R script from the grid.
   - Browse the Catalog to select an R Script. To do so:
     a. Select **Browse**.
        The **Select a rscript from the catalog** window appears.
     b. Select an R script.
     c. Select **Open**.

   A new page appears, displaying the selected R script.

   Tip: If you want to modify the script, make any required changes, including updating the values in the **Parameters** pane, and then select .

R Script Workflow

This workflow provides the basic, high-level steps for using this module. The steps and links in this workflow do not reference every possible procedure.

1. Create a new R script.
2. Enter R code in the R script editor.
3. Define each parameter in the R script.
4. Save the R script.
5. Create a policy containing the R Script node in order to execute the R script.

Chapter 2

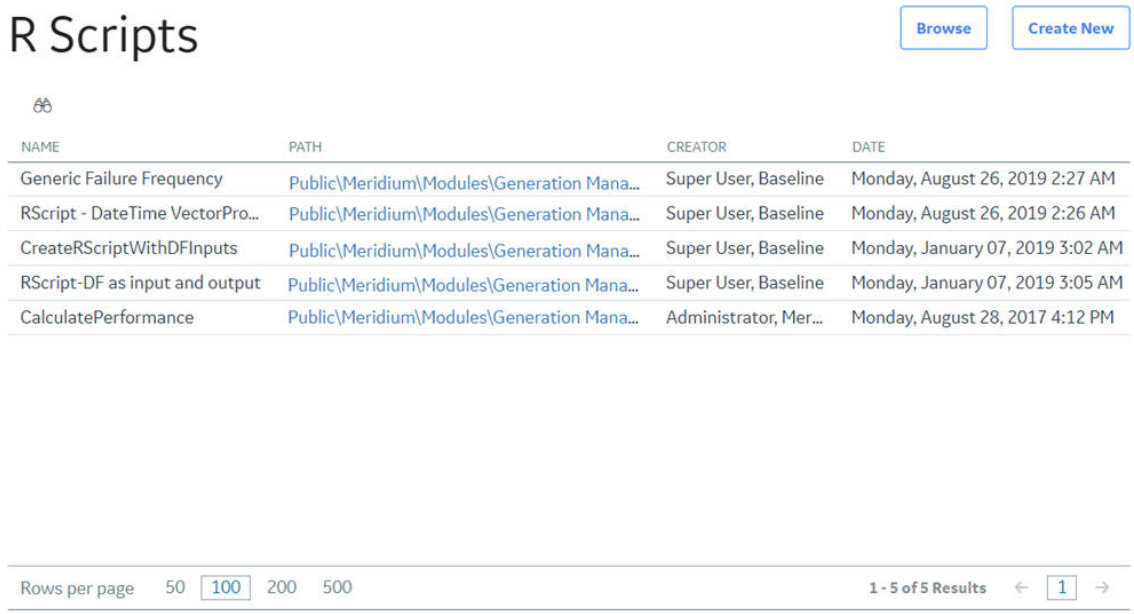
Manage R Scripts

Topics:

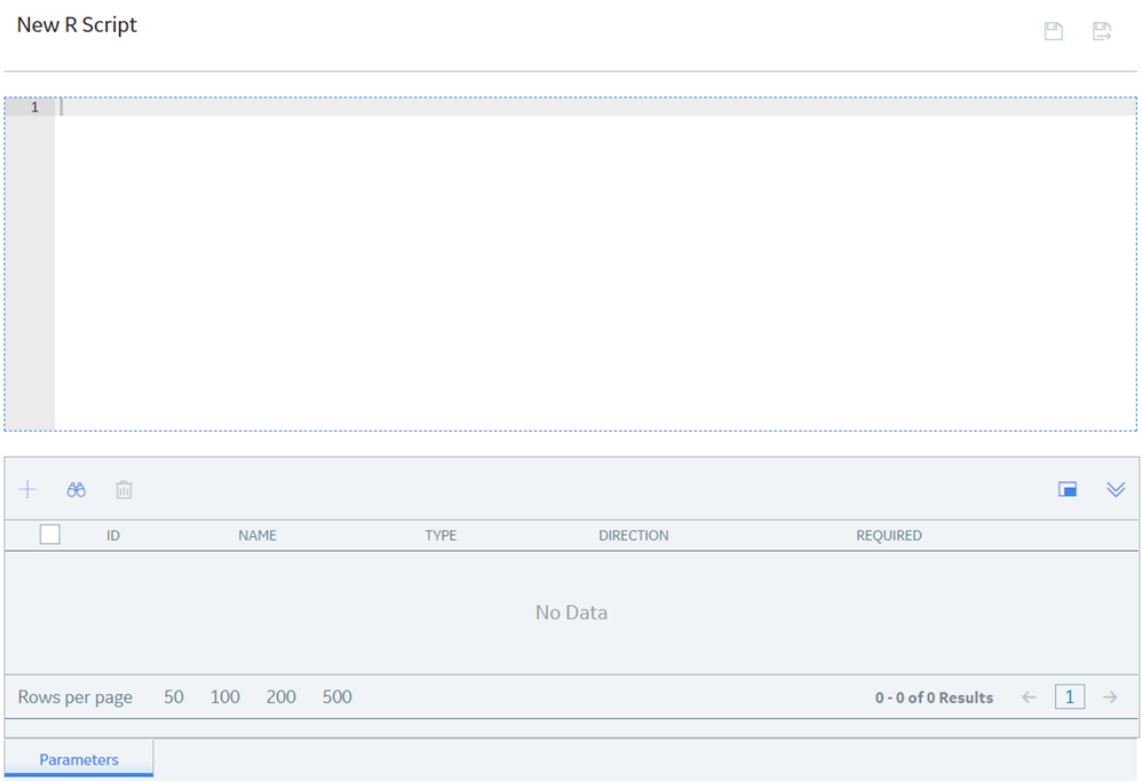
Create an R Script

Procedure

1. On the left navigation menu, select **Tools**, and then select **R Scripts**.
   The **R Scripts** page appears.



2. Select **Create New**.
   The **New R Script** page appears, which contains the script editor.



3. In the editor, enter your R code.

   Note: When you use R scripts with policies, the policy execution engine sends date inputs to the R script in UTC. If your R script performs any calculations based on dates, the date output must also be in UTC and use the standard date format yyyy-MM-dd hh:mm:ss.fff.
4. Define each parameter in the R script using the **Parameters** pane.
5. Select .
   The **Save As** window appears.
6. In the **Catalog** pane, navigate to the location at which you want to save the R script.
7. Enter values in the **Name**, **Caption**, **Description**, and **Of type** boxes.
8. Select **Save**.
   The R script has been saved.

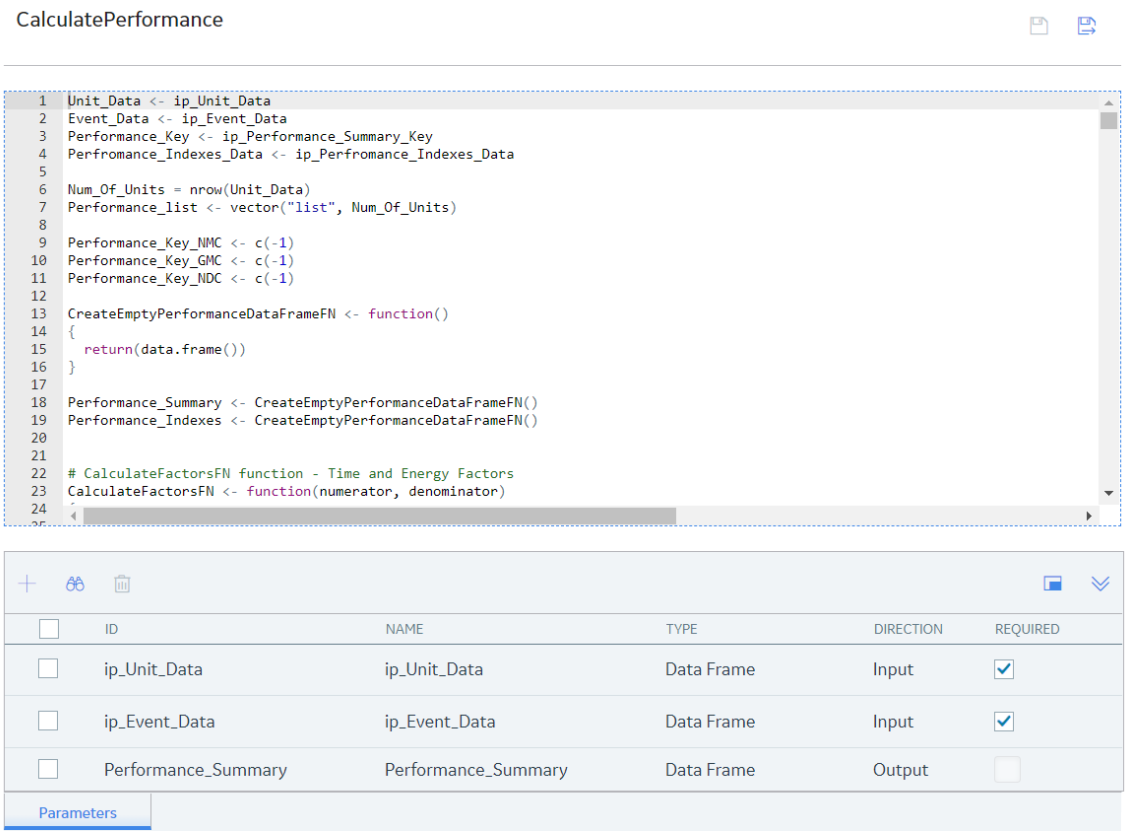
Define Parameters in R Scripts

About This Task

When you define a parameter, you are specifying whether each parameter in the R script is an input or output parameter, whether it is required, and what type of data it requires.

Procedure

1. Access the R script for which you want to define parameters.
2. At the bottom of the page, select **Parameters**.
   The **Parameters** pane appears.



3. Select +.
   A new row is added to the grid.
4. In the **ID** cell, enter the parameter ID exactly as it appears in the R script.
5. In the **Name** cell, enter a name for the parameter as you want it to appear to the Policy Designer user.
6. In the **Type** list, select the data type of the parameter.
7. In the **Direction** list, specify whether the parameter represents an input or an output to the R script.
8. If the parameter is an input and is required, select the **Required** check box.
9. For each parameter in the R script, repeat steps 3 through 8.
10. Select the save icon.
    The R script parameters are defined.

Delete Parameters in R Scripts

Procedure

1. Access the R script containing the parameter that you want to delete.
2. At the bottom of the page, select the **Parameters** tab.
   The **Parameters** pane appears.
3. On the left side of the **Parameters** pane, select the check boxes in the rows for the parameters you want to delete.
4. In the upper-left corner of the pane, select the trash icon.
   The parameter is removed from the **Parameters** pane.

5. Select  .
   The R script parameters are deleted.

Delete an R Script

Procedure

1. Access the **Catalog** page for the folder that contains the R script that you want to delete.
2. Select the check box that corresponds to the R script that you want to delete.
3. In the upper-right corner of the page, select  .
   A confirmation message appears, asking if you really want to delete the R script.
4. Select **OK**.
   The R script is deleted.

Chapter 3

Deployment

Topics:

Deployment and Upgrade

Deployment and Upgrade content for various GE Digital APM modules has been consolidated into a single document. For more information, refer to the module-specific information in the APM Module Deployment and Upgrade document.