[DataTron PowerShell Instructions]

December 10, 2017 - Version 9.0

Contents

1 Introduction

- Data Tron is series of PowerShell scripts that installs Relativity Data Grid on remote servers.
- The DataTron PowerShell script is public open source and constantly evolving.
- GitHub Download link for DataTron PowerShell: DataTron PowerShell download
- The download is only the PowerShell script used to install Relativity Data Grid.
- The Relativity Data Grid package itself is available from kCura Client Services.
- You must be kCura client with a valid Relativity Data Grid license to obtain the package.

2 Definitions

- Node: A Windows Server that will run the elastic service and will be part of the production cluster or the monitoring cluster.
- Command Center: The machine from which this script is run. This machine can be either a node itself or a jump server.
- Configuration Run: A run of the Run-DataTron.ps1 script to create a Config.psd1 file to be used by as Install Run.
- Install run: A run of the Run-DataTron.ps1 script to install Relativity Data Grid to a node.
- Shield Web Server: The Relativity web server which the production cluster will use for shield authentication.

3 Create the Command Center

- Logon to the Server as the Relativity Service Account.
- Verify the Relativity Service Account is a local administrator on all nodes.
- **Turn off the firewall on each node or** allow port 9200, 5985, and the preconfigured rules for WMI-In and Windows Remote Management (HTTP-in)
- Unzip the **RelativityDataGrid 2.3.3.58**.zip provided by Relativity Client Support to a root drive of the Command Center (The result should be a folder called DataTron on the root drive).
- Download the GitHub PowerShell scripts from this location DataTron PowerShell scripts unzip the package.
- Copy **DataTron.ps1** and **Run-DataTron.ps1** from /datatron-master/source/code folder to the **DataTron folder**
- Download a JDK 8 installer. Copy the **installer package** to **RelativityDataGrid** in the DataTron folder.
- Change the execution policy to bypass. Run the follow command in PowerShell: Set-ExecutionPolicy Bypass

4 Configuration Run. (mandatory)

- The configuration run is kicked off by opening PowerShell as an administration, navigating to the DataTron folder and running the following command:
- **.\Run-DataTron.ps1 -Config**
- The configuration requires the following information:
- The Relativity Service Account username and password.
- A name for the Production node. (This can be any string without special characters.)
- A name for the monitoring node (optional: enter blank to skip).
- The names of all nodes that will be in the production array this will be Master(s), Data(s), and Client(s). Use FQDN.
- You will specify the minimum numbers of masters. Should be an odd number. https://www.elastic.co/guide/en/elasticsearch/reference/2.3/modules-node.html#split-brain
- A Data path must be specified for each type of node. For example, c:\data, f:\DataGrid, g:\relativitydatagrid\data, etc. This must be a mounted local drive. The folder is created by the installer. For any Type that will not be installed can be skipped.
- The Shield Web Server(s) (see above definitions). This can be a single server of a load balanced site. The script will import the certificate presented and will add it to the Java Key Store on each node. The certificate will be used for shield authentication.
- A REST username and password will be requested for the esadmin account. This will be used for login to the production nodes. The monitoring node login is username marvel password marvel. This default may be changed.
- A backup location. This location must already be created and shared to the Relativity Service Account. This setting can also be skipped.

5 Install to all nodes simultaneously

- The DataTron.ps1 script is used to run all of the installations on all nodes simultaneously.
- To use functionality the nodes must be specified in the script.
- Edit the script in the PowerShell ISE or any text editor.
- Look for this section:

```
$nodes = @(
,("MasterNode1" , "Master")
,("DataNode1" , "Data")
,("DataNode2" , "Data")
,("ClientNode1" , "Client")
,("MonitoringCluster" , "Monitor")
)
```

- In the above section, the nodes and their role in the cluster must be specified.
- Note, the syntax is as follows: ,("NodeName" , "Role") Each line has a leading comma.
- The NodeName is the FQDN of the server.
- Role can be Master, Client, Data, or Monitor and must be specified.
- Add or remove lines to create more or less nodes, while respecting the syntax.
- With all the servers added, save the file. Open PowerShell. Navigate to the DataTron folder. Run the **DataTron.ps1** script.
- A PowerShell window will open for each node specified and install Elastic.
- When the run is complete press any key to close the window.

6 Single Server Runs.

6.1 Instructions for single node install.

Ensure you have already run a Configuration run. If not see above.

Open PowerShell. Navigate to the DataTron folder.

6.2 Example syntax

.\Run-DataTron.ps1 -driveLetter c -machineName someserver -nodetype Master

The above will install DataGrid to the drive letter c on the machine named -nodename and will make the node a monitoring node for the production cluster. It is not a member of the production cluster.

.\Run-DataTron.ps1 -driveLetter g -machineName MonitorNode01 -nodetype Monitor

The above will install DataGrid to the drive letter g on the machine named nodename2 and will make the node a production master node.

.\Run-DataTron.ps1 -driveLetter c -machineName someserver -nodetype Data

The above will install DataGrid to the drive letter c on the machine named nodename3 and will make the node a production data node.

.\Run-DataTron.ps1 -driveLetter c -machineName MyClientNode -nodetype Client

The above will install DataGrid to the drive letter c on the machine named nodename3 and will make the node a production client node.

.\Run-DataTron.ps1 -driveLetter c -machineName someserver -nodetype Master -dontInstallJava -dontCopyfolders

Does an install run but does not install Java and does not copy the installation folders. Both switches can be used or either one singly.

.\Run-DataTron2.ps1 -driveLetter d -machineName datanode1 Data -dontCopyFolders -dontInstallJava

The above will install Data Grid on driver letter d on machine name datanode1 and make it a data node. it will not attempt to copy folders or install java.

Note: The longest sections of the script are the Install of Java and the copying of folders. If the script needs to be re-run due so errors, see the above switches to stop reinstall of java or recopying of the folders.

Note: You can use one or both switches if needed.

Note: In the config folder in the RelativityDataGrid folder there is a resetyml.ps1 that will reset the elasticsearch.yml back to default if needed.

You can access the following items to get acquainted with your need Relativity Data Grid cluster.

http://masternodename:9200/_plugin/head

http://monitoringnodename:9200/_plugin/head

http://monitoringnodename:5601

You need to Link Relativity to your newly created cluster.

https://help.kcura.com/9.5/Content/Relativity/Data_Grid/Installing_Data_Grid.htm#Linking

Use the following guide to configure Data Grid.

https://help.kcura.com/9.5/Content/Relativity/Data_Grid/Configuring_Data_Grid.htm

Resistance is not futile!