DataTron - the Relativity Data Grid PowerShell installation script

Data Tron is a PowerShell script that installs Relativity Data Grid on remote servers.

The DataTron PowerShell script is public open source and constantly evolving.

GetHub Download : DataTron PowerShell download

Salesforce Download : DataTron Folder download

Definitions:

Node: A machine that will run elastic search and will be part of the production cluster or the monitoring cluster. The node must have PowerShell installed.

Command Center: The machine from which this script is run. It must have PowerShell installed. This can be a node or a management server.

Configuration Run: A run of the script to create a Config.psd1 file to be used by as Install Run.

Install run: A run of the script with intent to install Relativity Data Grid to a node.

Shield Web Server: The Relativity web server which the production cluster use for shield authentication.

Create the Command Center.

1. Copy the two files downloaded from above to your command center. This machine must have network access to all of the nodes.
2. Unzip the **DataTron.zip** to root drive the will create a folder called DataTron containing the **RelativityDataGrid** folder.
3. Open the **datatron-master.zip** in Explorer navigate to **Source** then **Code**.
4. Copy the **Run-DataTron.psd1** to the **DataTron** folder.
5. Download Kibana if you want a monitoring node (optional). Unzip the **kibana-4.5.4-windows.zip** into the **DataTron** folder.
6. Ensure your environment has a **Relativity web server with an https binding,** this will be your Shield Web Server.
7. Export the **certificate** from that web server. Don't export a private key; make a **.cer file**.
8. Copy the **.cer file** into **DataTron/RelativityDataGrid/elasticsearch-main** folder.
9. Check the execution policy for the Command Center using, **Get-ExecutionPolicy** in PowerShell. If the execution policy is restricted it must be changed to remote signed using. **Set-ExecutionPolicy RemoteSigned**.

Do a configuration Run.

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 service account username and password. (required)
- > A name for the Production cluster and a name for the Monitoring cluster (the monitoring cluster is optional: enter blank to skip, Production node name should be entered or it will default to elasticsearch and if possible joint the public cluster).
- > 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). (Enter one name at a time, enter exit to stop entering names.)
- > You will specify the minimum numbers of masters. This should be an odd number if you only have one master node enter
  1. https://www.elastic.co/guide/en/elasticsearch/reference/2.3/modules-node.html#split-brain
- > A Data path must be added for each type of node. For example, c:\data, f:\DataGrid, g:\relativitydatagrid\data, etc. This is a local drive corresponding to each type of node.
- > The name of all Primary and Distributed SQL servers in the Relativity Environment. This is a comma separated list. Do not include Invariant.
- > The Shield Web Server (see above definitions). This must be the name that will correspond with the name on the certificate added during creation of the Command Center.

Do installation Runs.

A good order of operations to do the install runs in is as follows:

Production cluster Master node(s).

Monitoring cluster Monitoring node.

Production cluster Data node(s).

Production cluster Client node(s).

Example syntax:

.\DataTron\Run-DataTron.ps1 -Config

This will create a Config.psd1 file in the directory for and install run.

This is a switch and cannot be run with any other parameters.

Once a Config.psd1 file is created the script can be used to do an install run.

.\DataTron\Run-DataTron.ps1 -driveLetter c -machineName nodename -IsMaster

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.

.\DataTron\Run-DataTron.ps1 -driveLetter g -machineName nodename2 -IsMonitor

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

.\DataTron\Run-DataTron.ps1 -driveLetter c -machineName nodename3 -IsData

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

.\DataTron\Run-DataTron.ps1 -driveLetter c -machineName nodename3 -IsClient

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

.\DataTron\Run-DataTron.ps1 -driveLetter c -machineName someserver -IsMaster -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.

.\DataTron\Run-DataTron.ps1 -driveLetter d -machineName datanode1 -IsData -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, there are 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.

Note: The installer with install with 2 GB of RAM devoted to Java. You need that much available not just total. This can be modified by running kservice.bat manager from the bin folder in elasticsearch-main folder in Relativity Data Grid.

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!