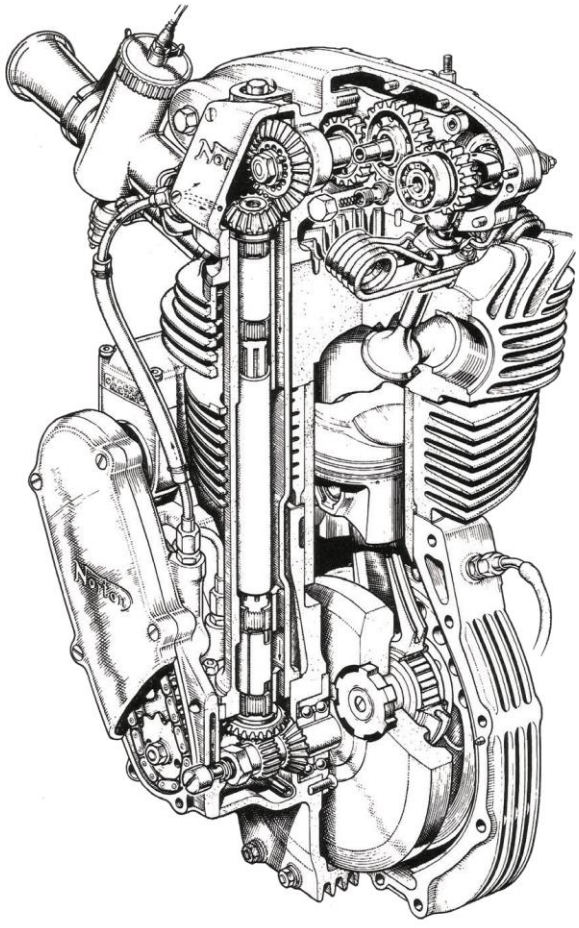
Argent Reporter



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Introduction

Argent Reporter is the reporting facility in Argent Omega. Argent Reporter uses RDLC (Report Definition Language Client) to generate reports by taking an RDL file designed with Microsoft Report Builder to generate RDLC files for reporting.

The most important aspect of Argent Reporter is that it can take data from any database – SQL Server, Oracle, etc. – there is no limit.

Moreover, the PowerShell script facility enables Argent Reporter to generate reports from any data source – flat files, Excel spreadsheets, web pages, etc. – there is no limit.

Logic in RDL (Report Definition Language) can optionally be used.

Argent Reporter also reports on critical aspects of Argent Omega, such as Cross-Reference, Outstanding Events, Performance Chart, System Events, and User Audit, etc. An array of these reports has been created for you.

Argent Reporter report output formats include:

- PDF
- Microsoft Word
- Microsoft Excel
- Image
- XML

Argent Reporter includes the Easy Automation feature to automatically generate reports at a scheduled time and deliver the reports to users' mailboxes.

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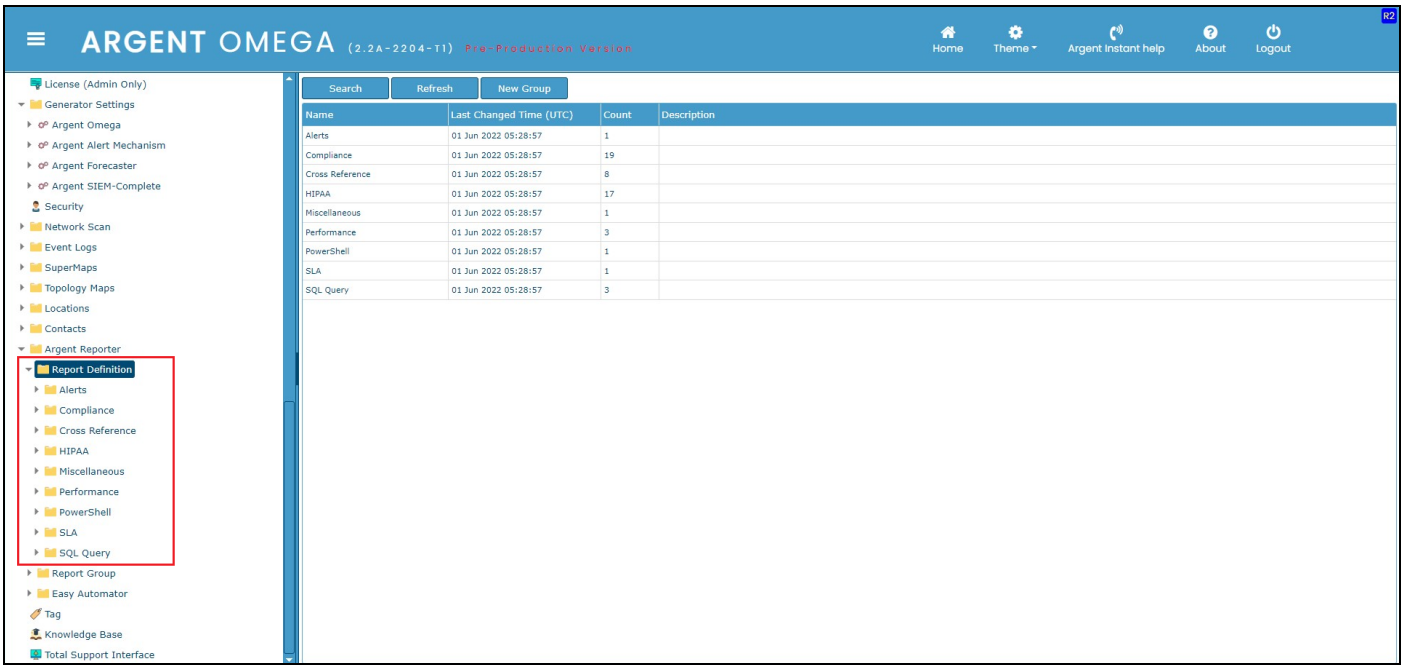
Report Definition

Argent Omega installs the most commonly used reports during setup:



Available report types include:

- **Alert**

  Listing Argent Alert Mechanism Console Events and Archived Console Events.

- **Compliance Report**

  Listing Argent Compliance reports.

- **Cross Reference**

  Argent Omega Relator-centric cross-reference reports.

- **Custom Report**

  Report that is fully defined in RDL. Argent Reporter only provides an interface to define and report generating.

- **Performance Chart**

  Report the performance data saved in Argent Forecaster.

- **PowerShell Script Report**

  Report on data provided by custom logic defined in PowerShell.

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- **SQL Query Report**

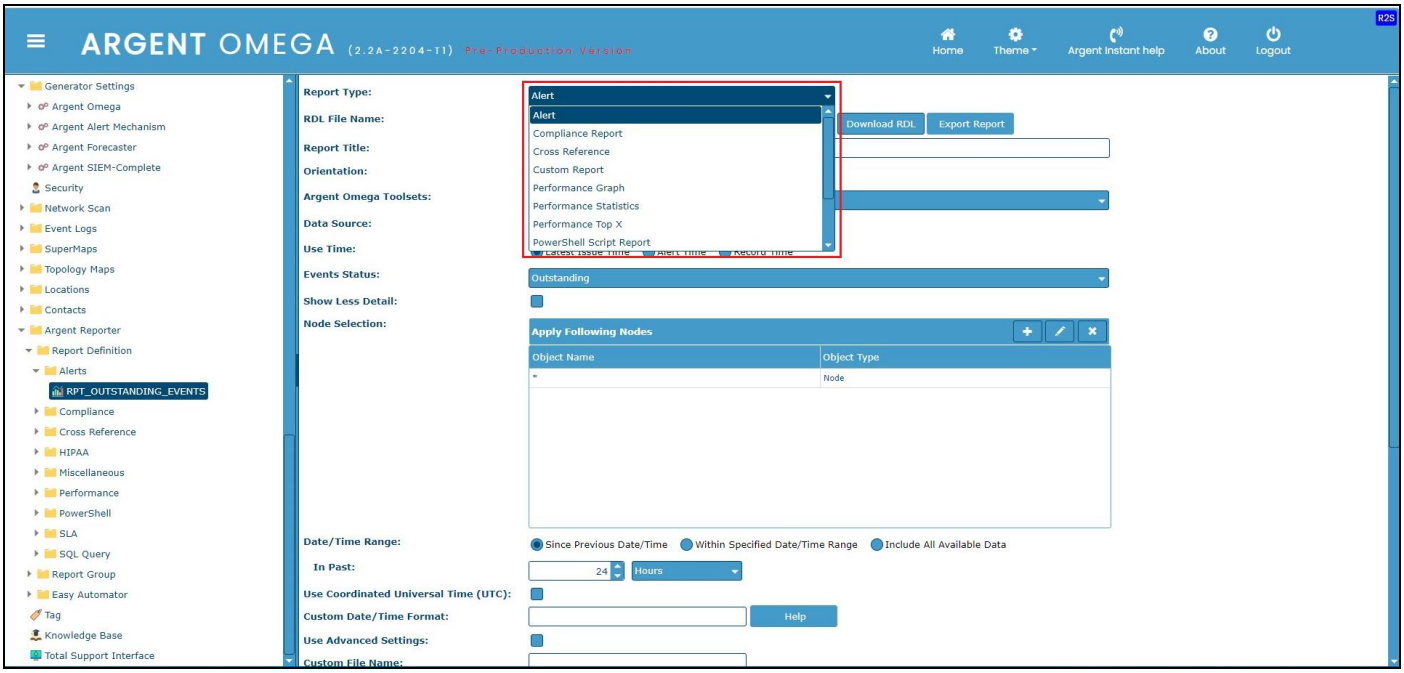
  Report on SQL Query output.

- **SLA Report**

  Report on SLA.

- **SQL Server Jobs**

  Report on SQL Server Jobs of selected SQL Server machines:



Report Common Fields include

- **RDL File**

  Default RDL is provided for all types, except Custom Report. For Custom Report, browse the corresponding RDL file.

- **Report Title**

  Report title text.

- **Report Header**

  Not used, by default.

- **Report Footer**

  Report footer text.

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- **Orientation**

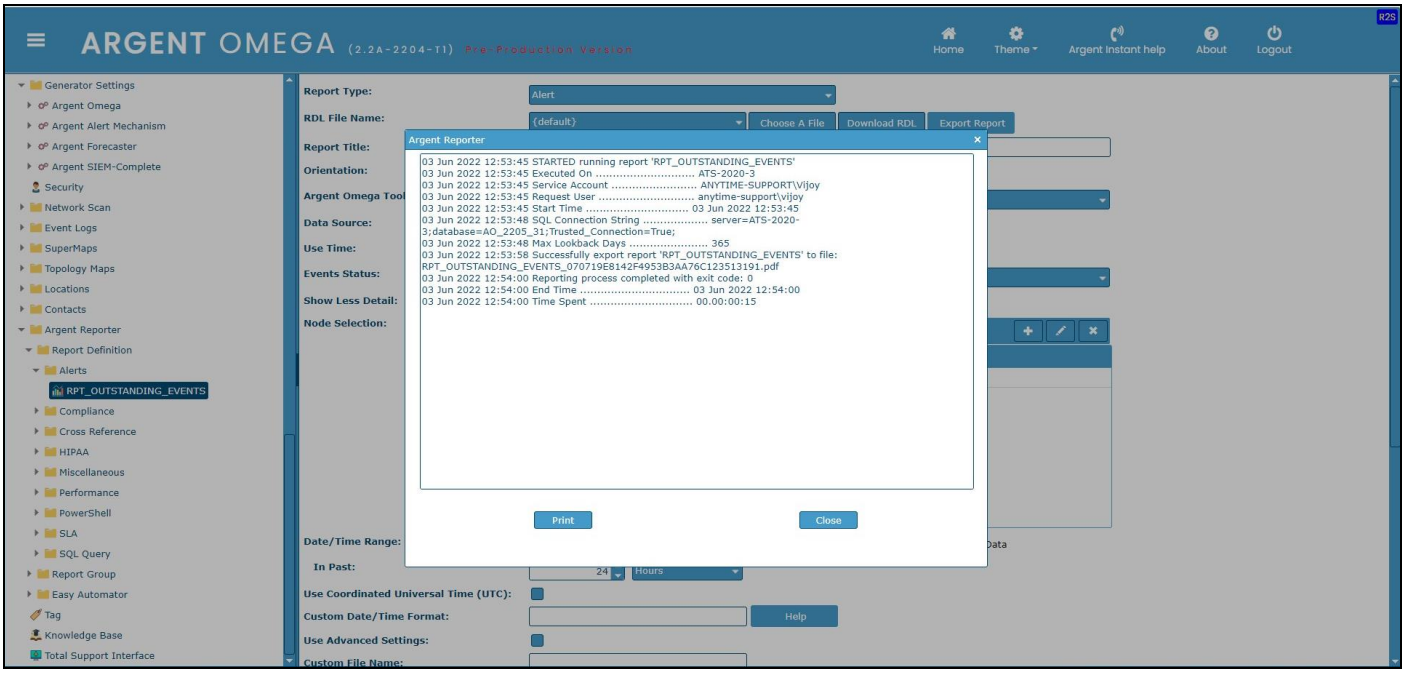
  Portrait or Landscape.

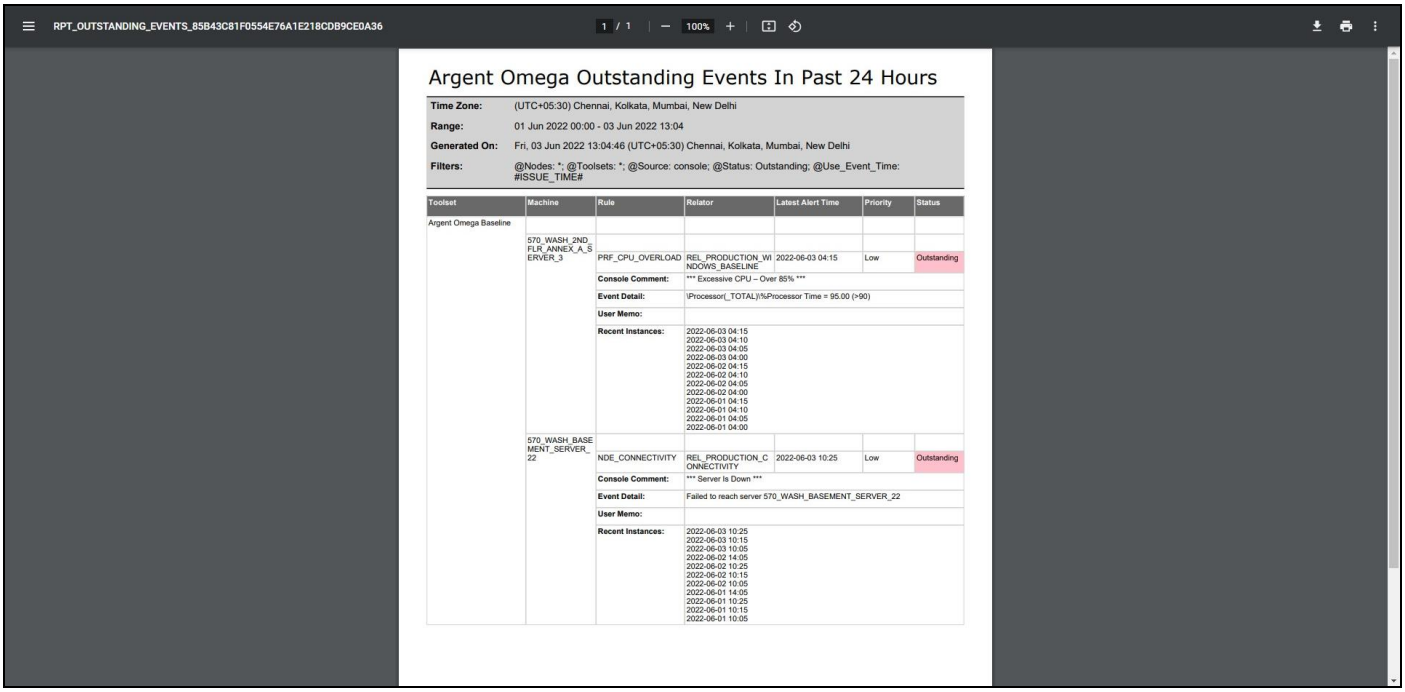
- **Easy Automator**

  Define whether to generate report automatically.

Generating A Report - Run Report

Select **Run Report** on right click menu to display report:





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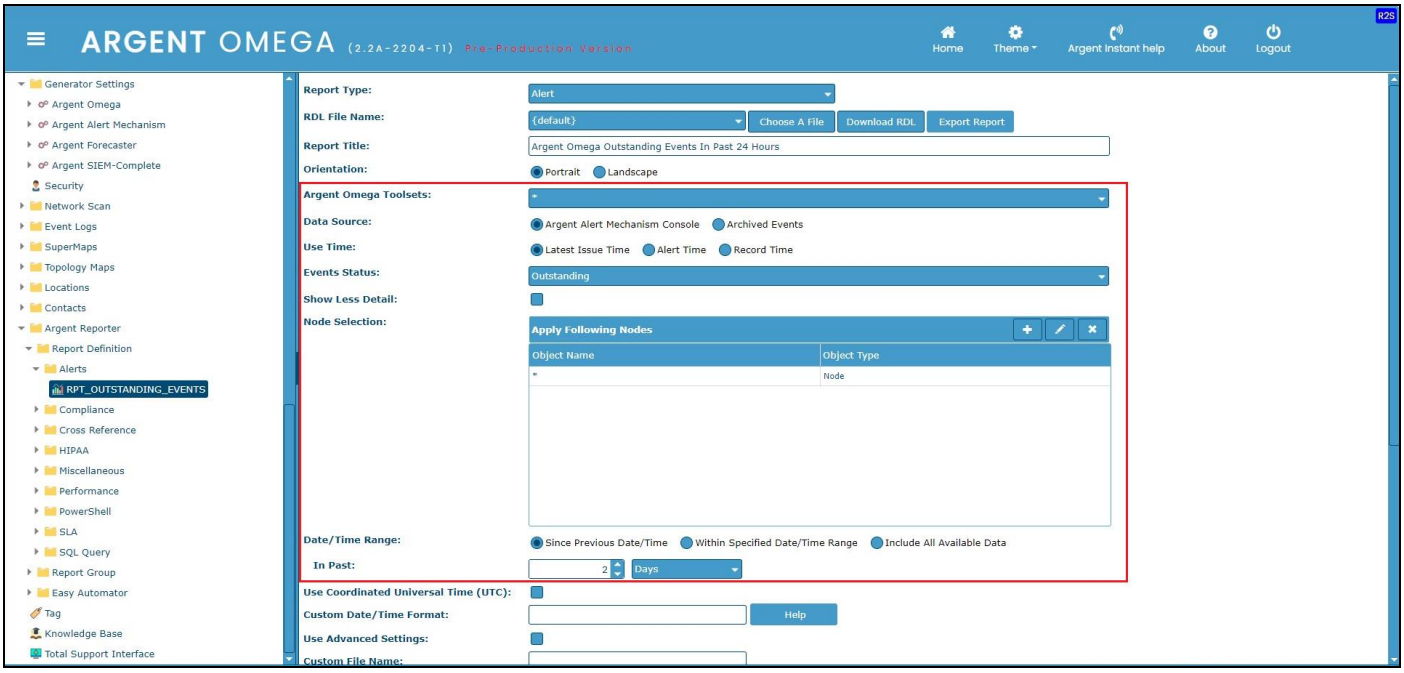
Alert Report



Report specific fields, including:

- **Argent Omega Toolsets**

  '*' is used by default to include all.

- **Data Source**

  Reports on Argent Alert Mechanism console or console archive.

- **Use Time**

  Comparing time using Latest Issue Time, Alert Time or Record Time.

- **Event Status**

  Can be combination of Outstanding, Answered or Resolved.

- **Show Less Detail**

  If checked, uses event short description instead of long description.

- **Node Selection**

  Server or Devices to report.

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- **Date/Time Range**

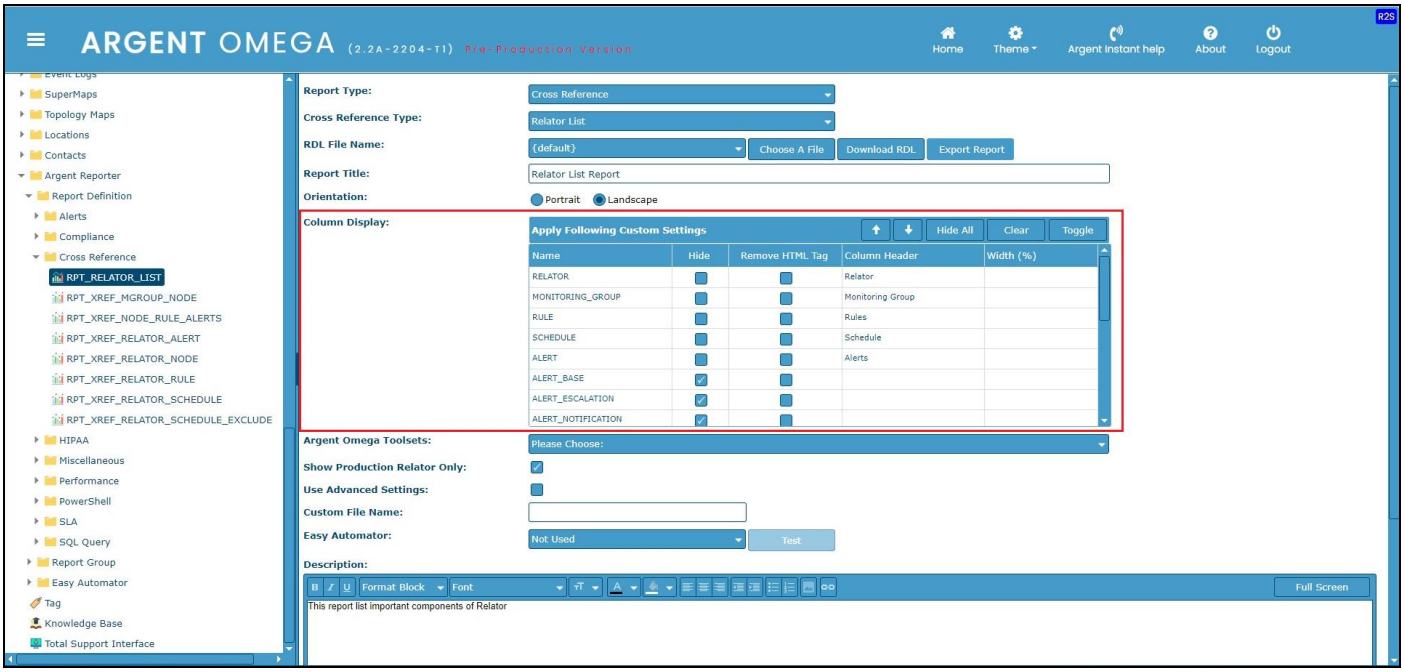
  Event time range.

- **Use UTC**

  Report should display UTC time instead of local time if it is checked.

Cross-Reference Reports

Argent Reporter bundles quite a few useful cross-reference reports. Among the most used are **Node or Rule or Email or SMS** Cross Reference reports. It shows that each CMDB-X node is actively monitored by some Rules; email or SMS recipients should be notified when Rules are broken. It literally tells how the enterprise environment is monitored currently:



Report specific fields include:

- **Column Display**

  It controls what columns should be displayed and how they are displayed.

- **Argent Omega Toolsets**

  '*' is used by default to include all.

- **Show Production Relator Only**

  It is checked by default.

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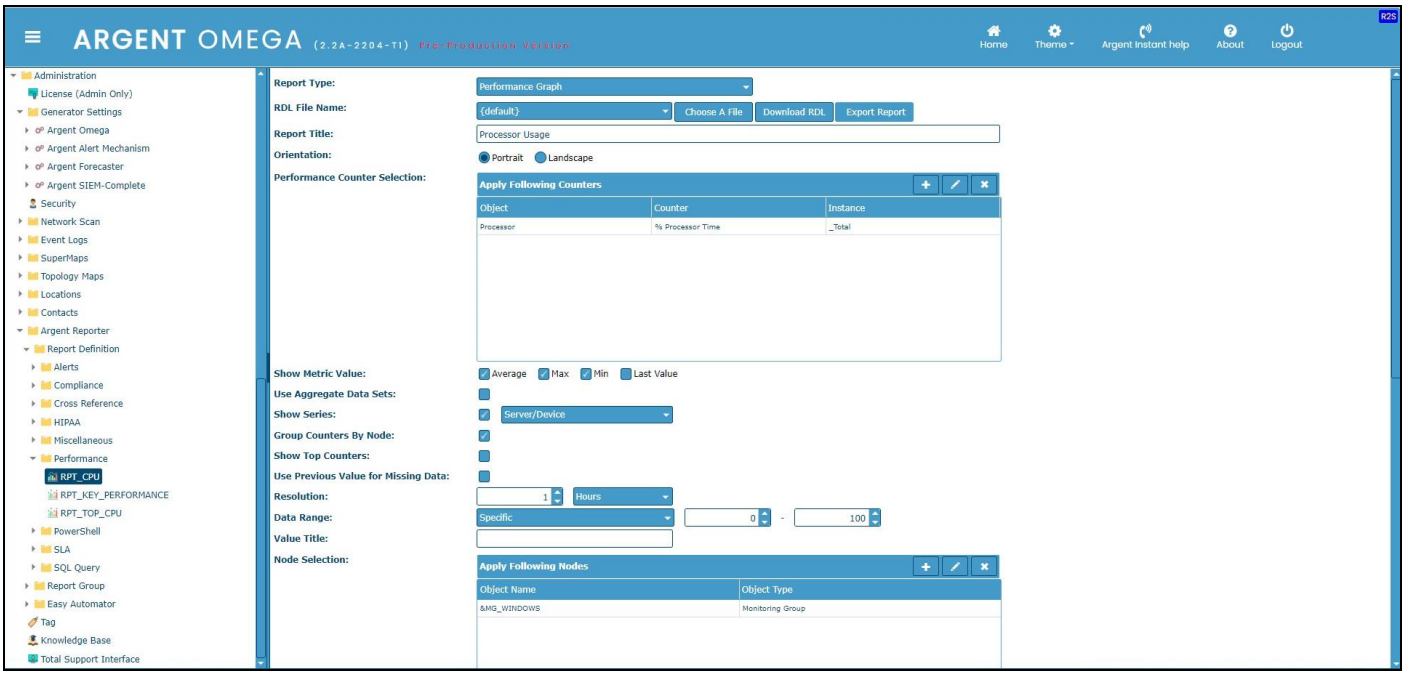
Performance Chart

Performance Chart shows the performance data saved in Argent Forecaster:



Report specific columns include:

- **Node Selection**

  Server or Devices to report.

- **Performance Counter Selection**

  Performance counters to report.

- **Date/Time Range**

  Event time range.

- **Show Metric Value**

  Average, Maximum, Minimum or Last value.

- **Use Aggregate Data Sets**

  Allows combining data from multiple tables if sharding is used in Data Set definition.

- **Group Counters By Node**

  One node on chart.

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- **Limit Counters Per Chart**

  Spread counters over multiple charts.

- **Show Top Counters**

  Show only top counters on chart.

- **Use Previous Value For Missing Data**

  Patch data if it is missing.

- **Resolution**

  Data point resolution on chart.

- **Custom Date/Time Format**

  Time displayed on X-Axis. The defaults are yyyy-MM-dd or yyyy-MM-dd HH:mm:ss.

- **Data Range**

  Custom data range is available.

- **Value Title**

  Title for Y-Axis values.

- **Show Series**

  In a line graph, each line represents a series of data changing with time. Each line will have an identifier to distinguish different series of data.

  When **'Show Series'** is turned off, each line will be identified using full counter name in format of \\machine\object (instance)\counter

  When graphing multiple nodes for the same metric, customer can consider enabling **"Show Series"** to shorten line identifier to show Server/Device name only.

  When graphing multiple instances of the same metric of the same node, customer can consider enabling "**Show Series"** to shorten line identifier to show instance name only.

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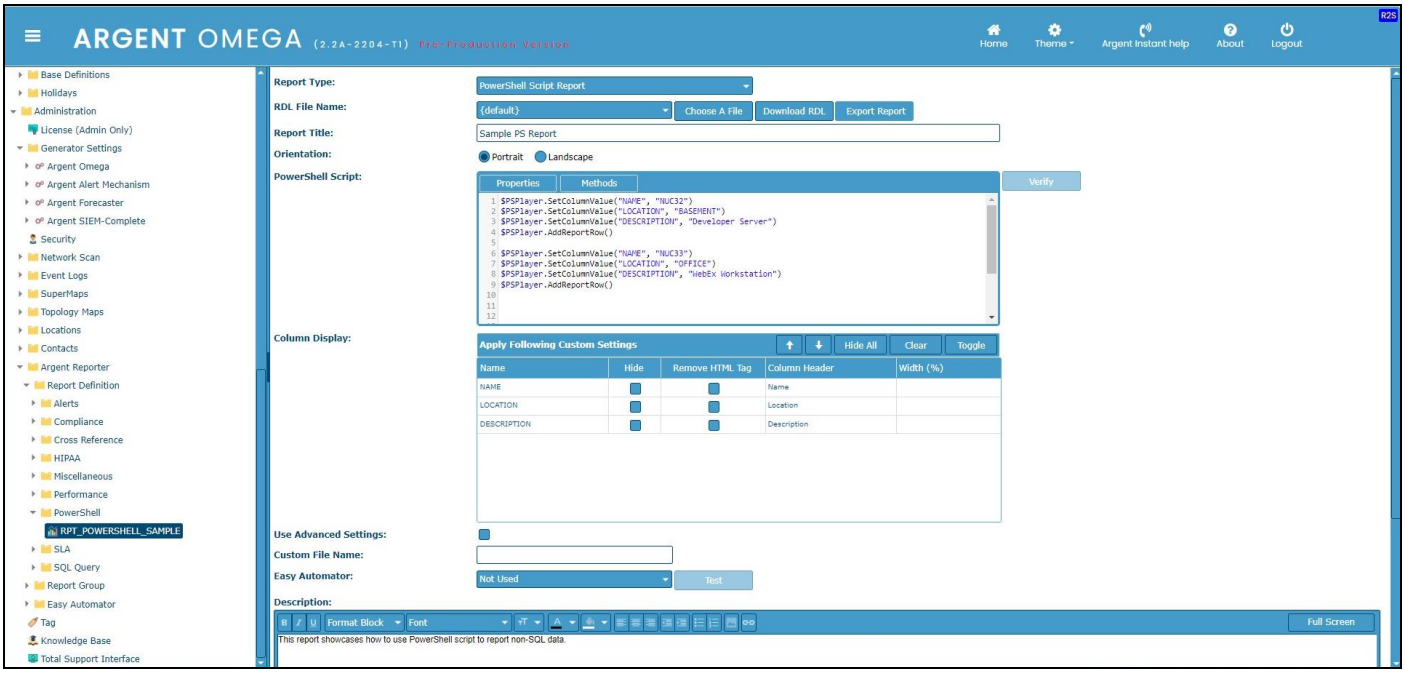
PowerShell Script Report



Report-specific columns include:

- **PowerShell Script**

  Report logic.

- **Column Display**

  Controls which columns should be displayed and how they are displayed.

- **Node Selection**

  Shows only if **"$PSPlayer.Nodes"** is used in script.

- **Date/Time Range**

  Shows only if "**$PSPlayer.StartTimeUtc"** and/or "**$PSPlayer.EndTimeUtc"** are used in script.

- **Argent Omega Toolsets**

  Shows only if "**$PSPlayer.Toolsets"** is used in script.

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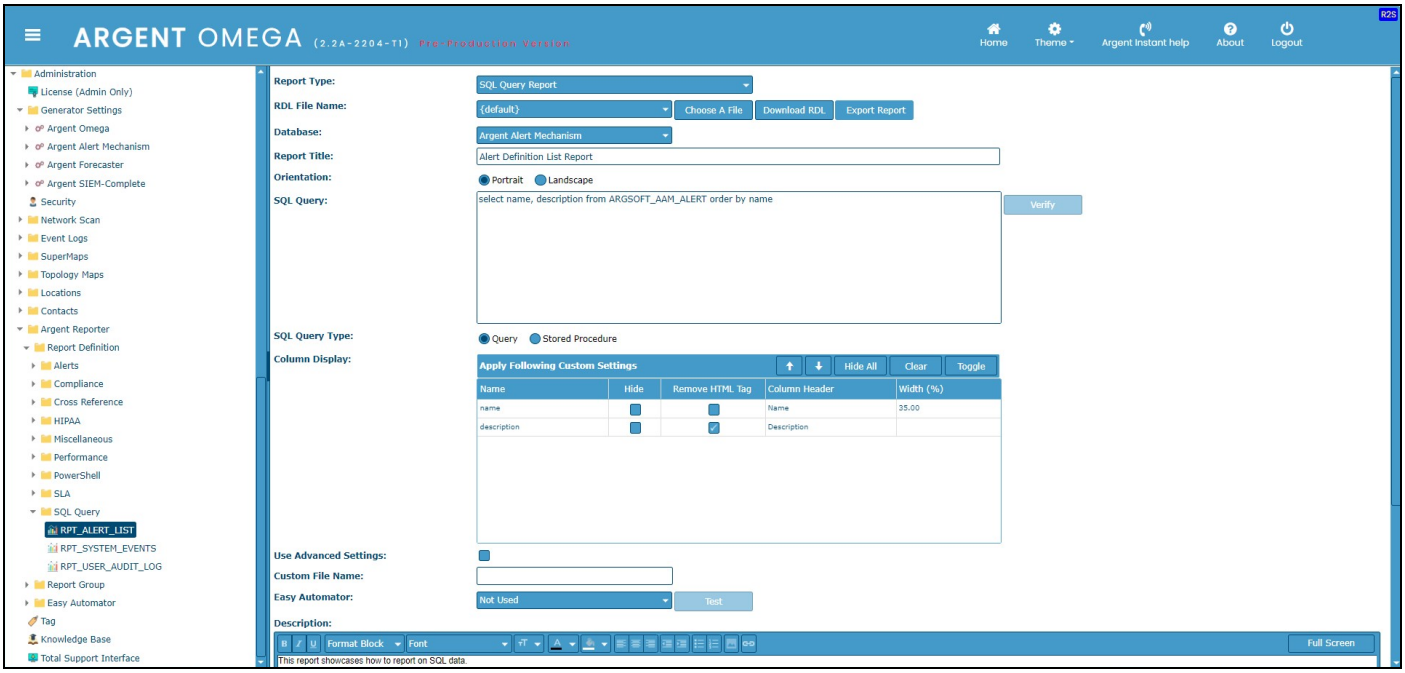
SQL Query Report



Report-specific columns include:

- **SQL Query**

  SQL query to filter data for Report.

- **SQL Query Type**

  Can be query or stored procedure.

- **Column Display**

  Controls which columns should be displayed and how they are displayed.

- **Node Selection**

  Shows only if “#NODES” is used in query. The keyword in query would be replaced with string of ”node_1,” ”node_2,” ”node_3”…”node_xxx.”

- **Date/Time Range**

  Shows only if any of “#START_TIME_UTC#,” “#END_TIME_UTC#,” ”#START_TIME#,” or ”#END_TIME#” are used in query.

- **Argent Omega Toolsets**

  Shows only if “**#TOOLSETS#”** is used in query. The keyword in query would be replaced with string of “toolset_1,” ”toolset _2,” ”toolset _3”…” toolset _xxx.”

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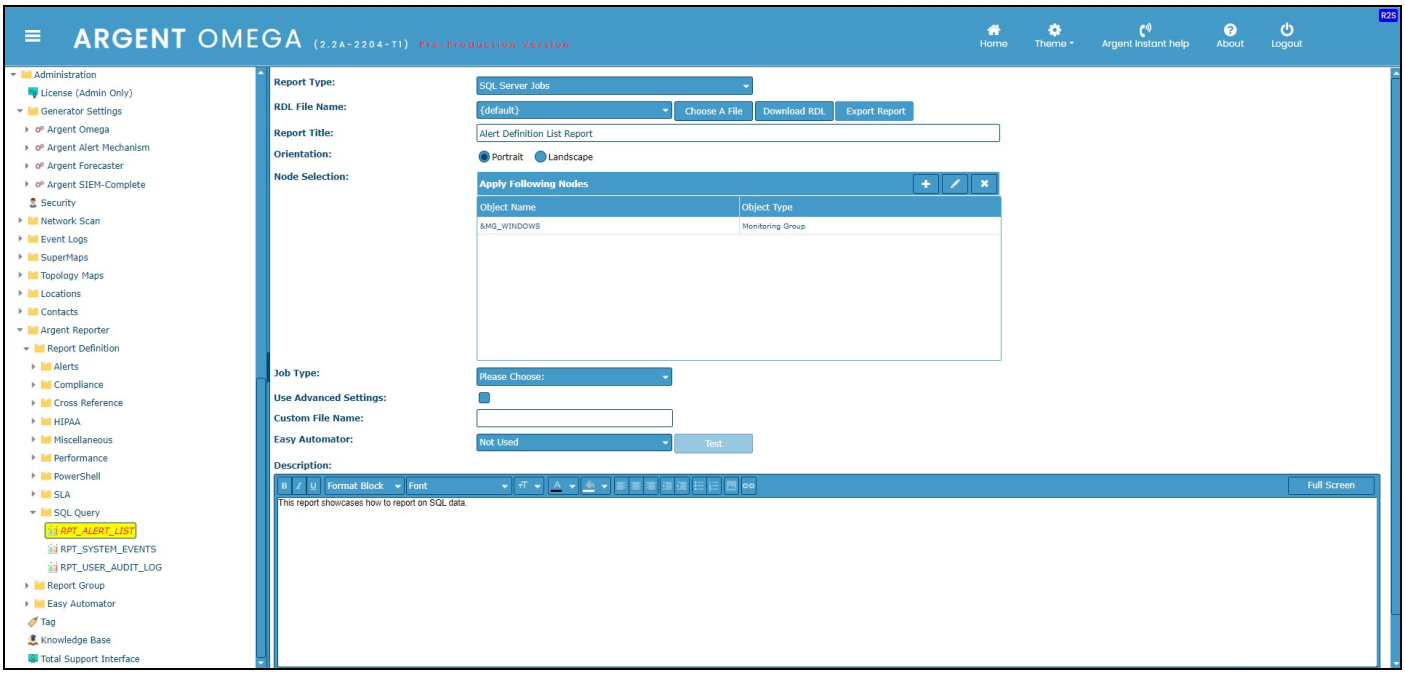
SQL Job Report

This report is a special case report. Argent can provide such reports when SQL Query reports and PowerShell Script reports are difficult to implement for certain external data:



The difficulty in reporting SQL Jobs is that data comes from multiple SQL Server machines. It is possible to implement to use SQL Query report. However, it would involve DBA jobs, like linking external SQL Server machines and allowing remote execution, etc. Sometimes, this is difficult for the customer.

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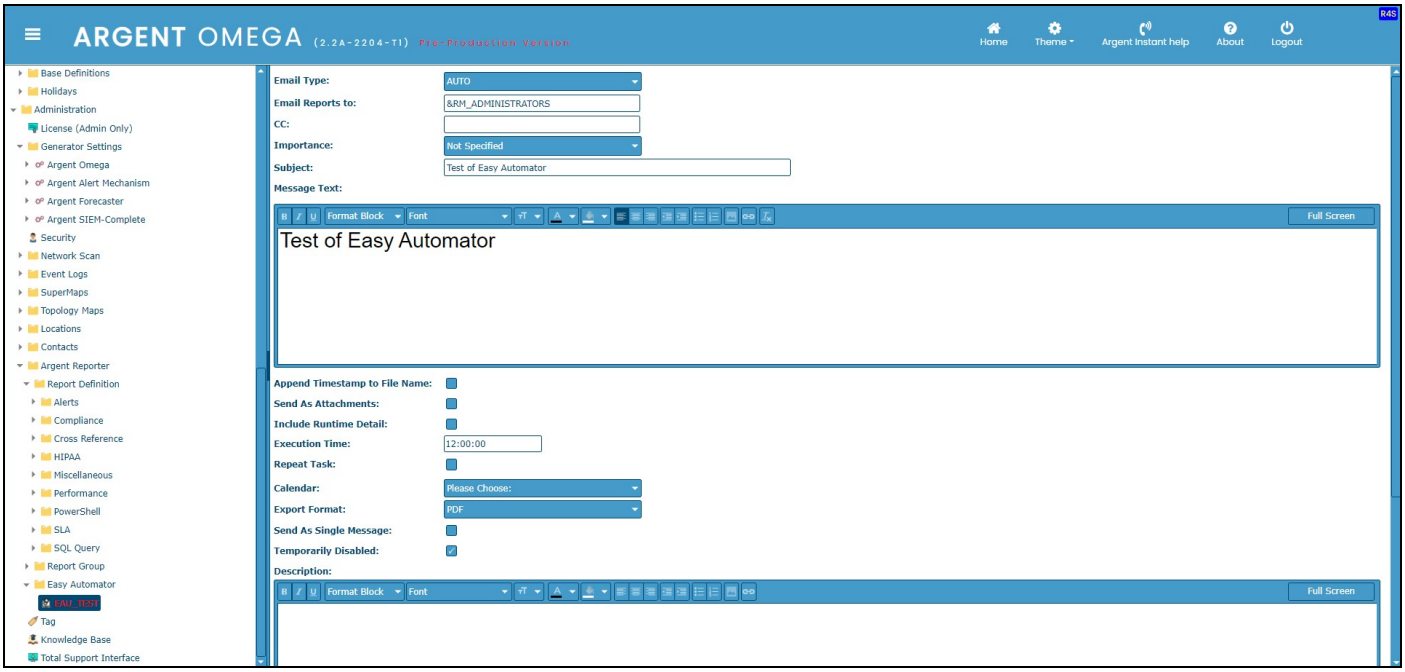
Easy Automator

Easy Automator provides reporting automation. Easy Automator runs on schedule and delivers reports to users' mailboxes:



Definition fields include:

- **Email Type**

  It can be Auto, SMTP, Exchange Web Service, and MAPI.

- **Email Reports To**

  Email recipients.

- **CC**

  Email CC.

- **Importance**

  Message importance.

- **Subject**

  Email subject.

- **Message Text**

  Email message.

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- **Append Timestamp to File Name**

  This is useful in avoiding overwriting old report files.

- **Send As Attachment**

  Report can be either sent as an email attachment or a download link in the email body.

- **Include Runtime Detail**

  Add runtime detail at the end of the message. This is useful for debugging.

- **Execution Time**

  Time at which the report runs.

- **Repeat Task**

  Set as repetition, such as sending report once per hour.

- **Calendar**

  Determines the date for sending the report.

- **Export Format**

  It can be PDF, Word, Excel or Image.

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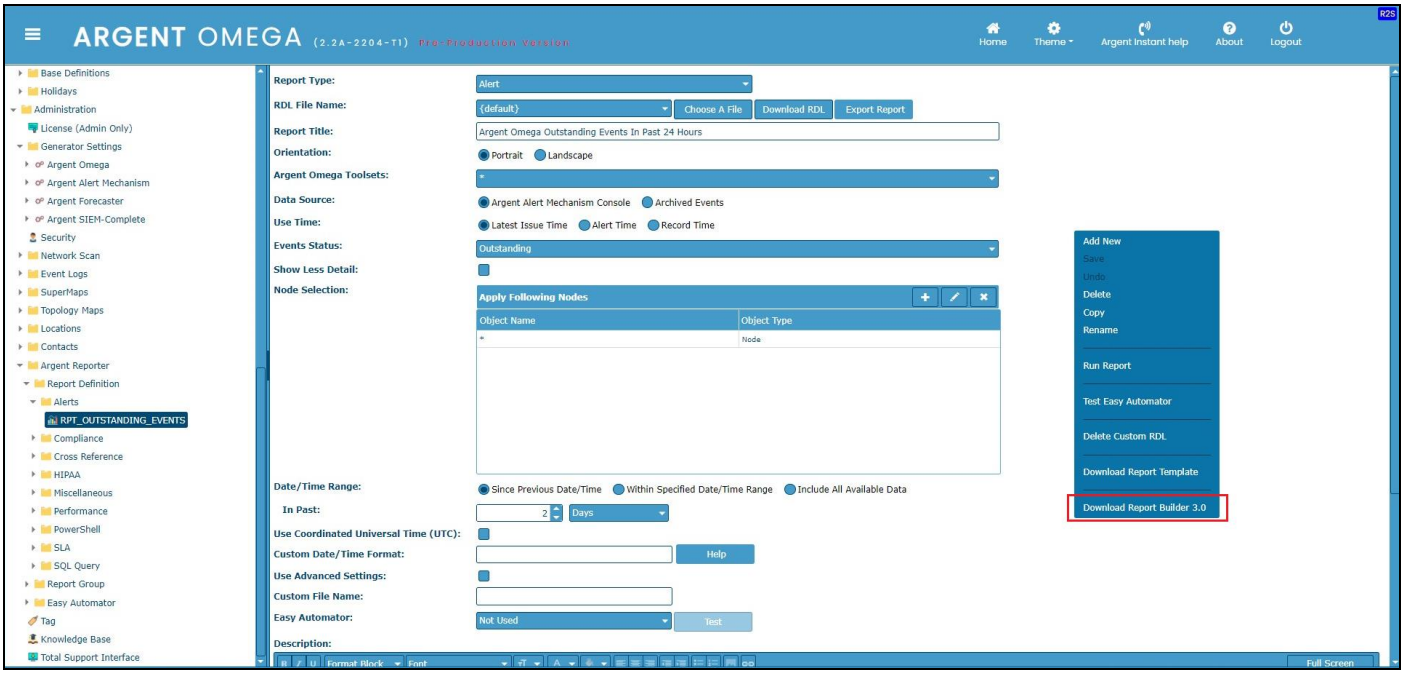
Custom RDL

Half of Argent Reporter's power comes from the sophisticated report designing tool – **Microsoft Report Builder, which** is free to download and use.

Argent Reporter provides the "**Download Report Builder"** menu option on the report definition screen:



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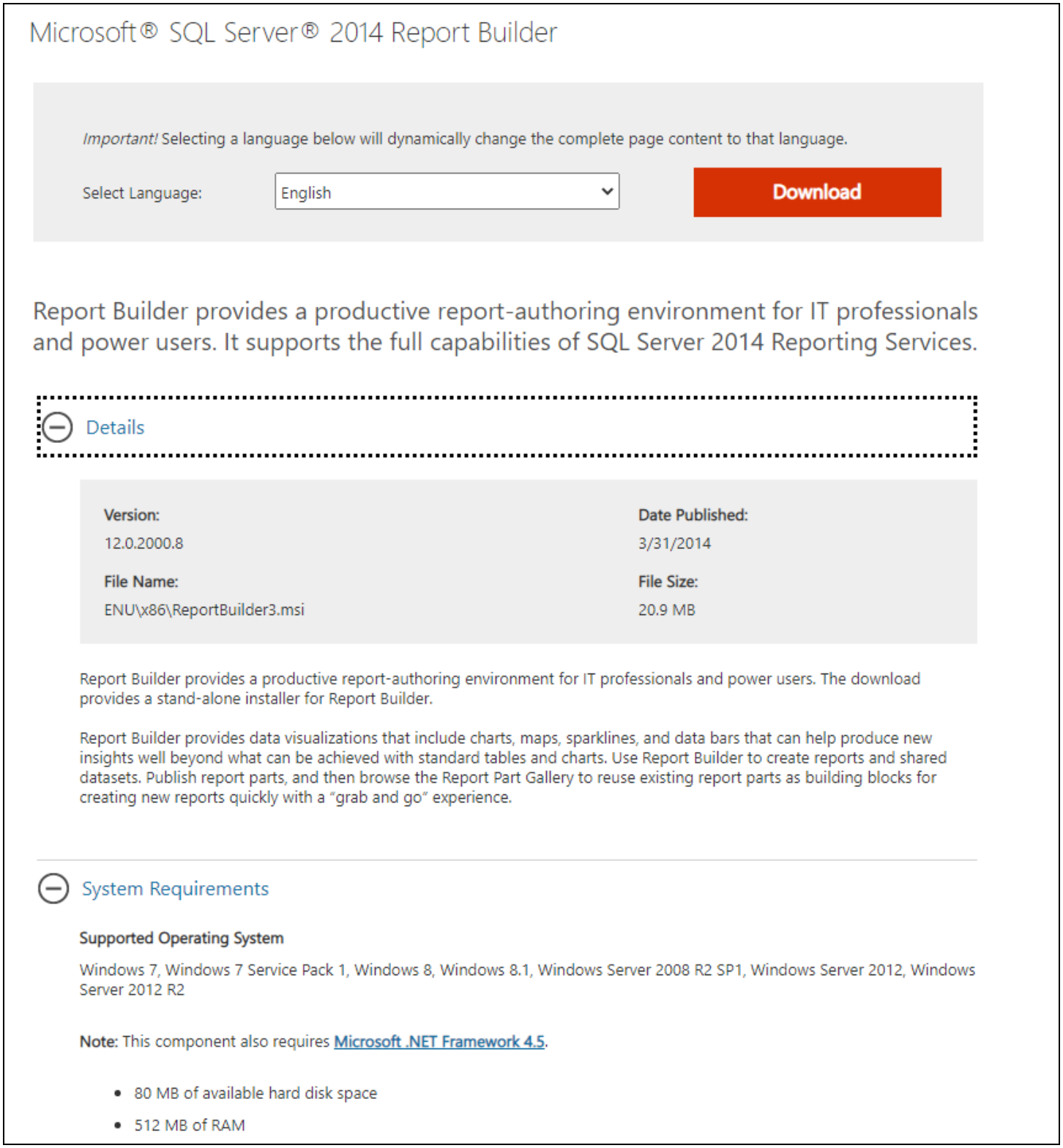
The actual download link is https://www.microsoft.com/en-us/download/details.aspx?id=42301



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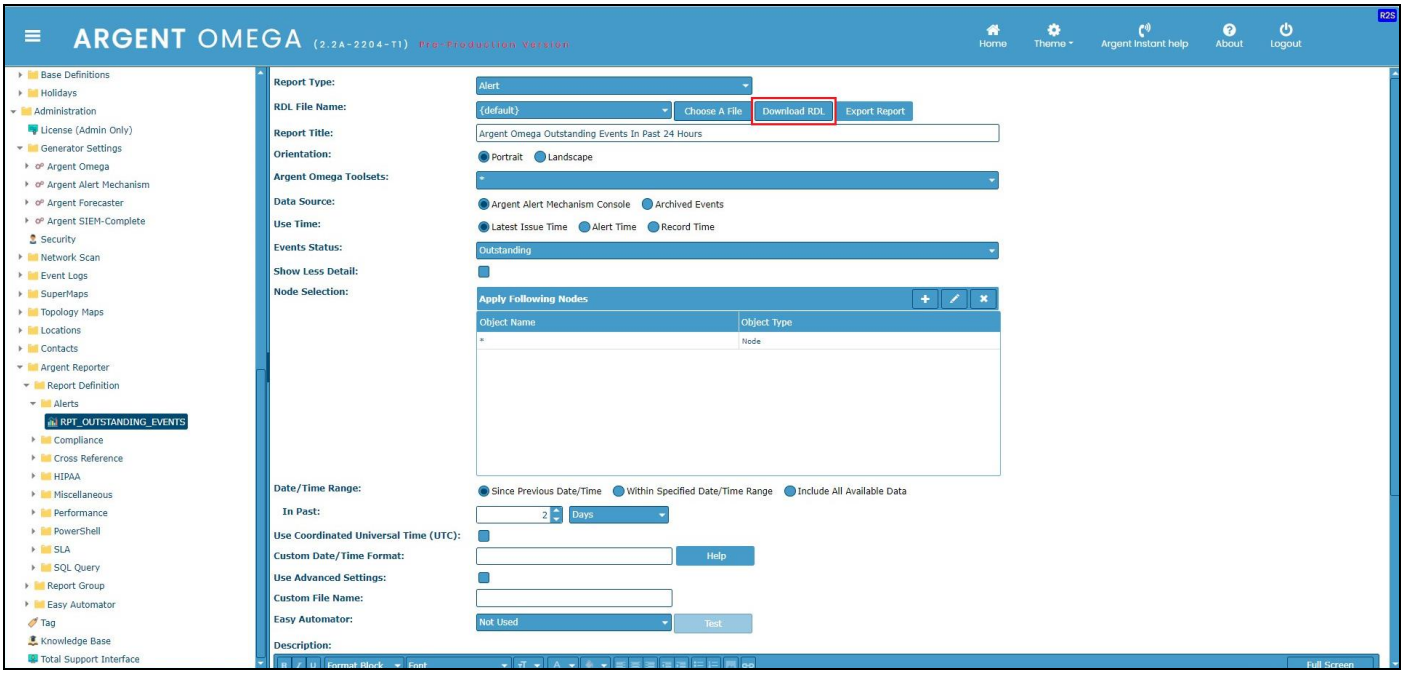
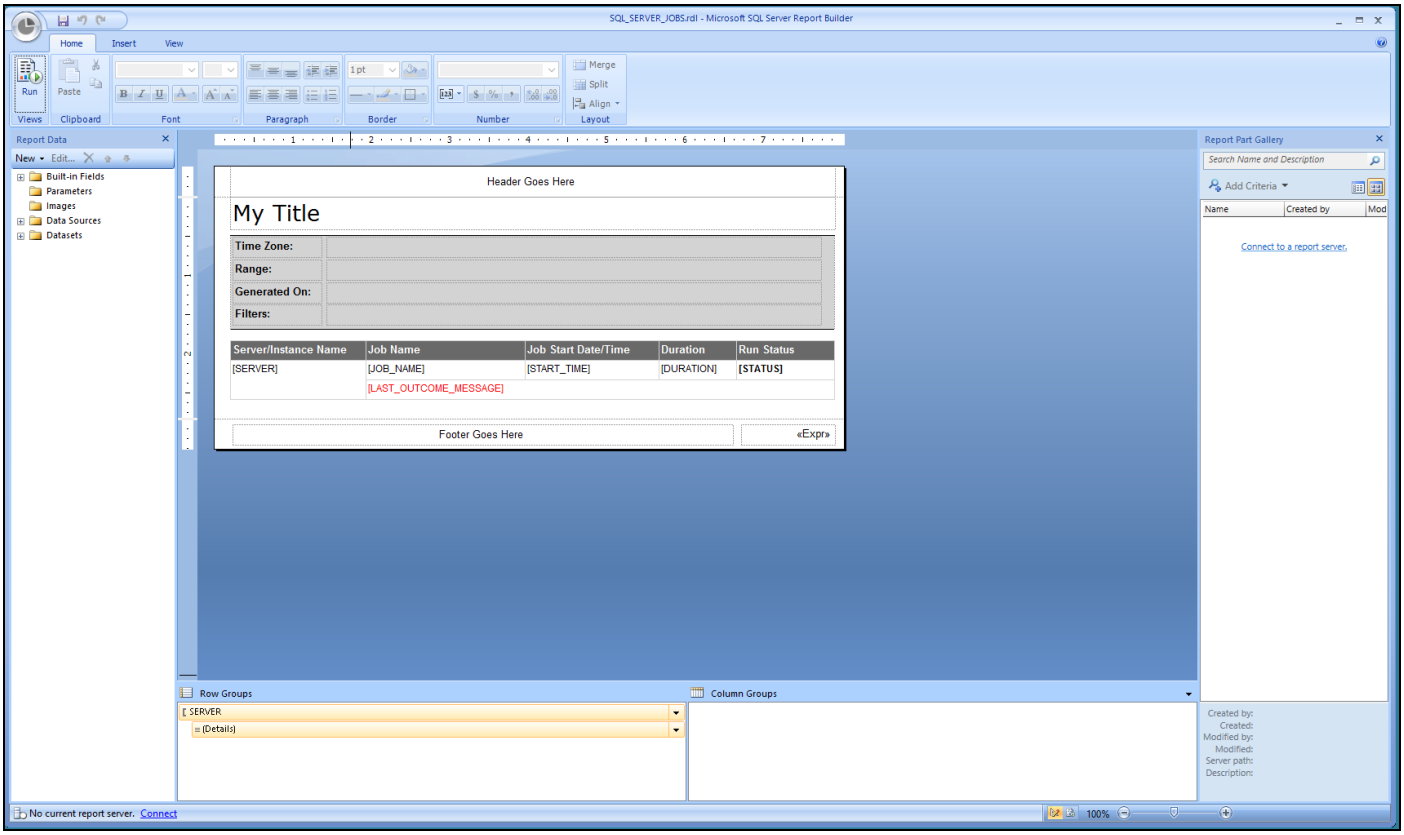
After installing Report Builder, user can now customize the built-in report RDL or define his own RDL for Custom Report.

If user wants only to do minor changes such as adding company logo, changing font size, etc., it is better to download the built-in RDL first. To do so, click on the button '**Download RDL**'.



Double Click on the downloaded RDL file; Report Builder should open for editing:



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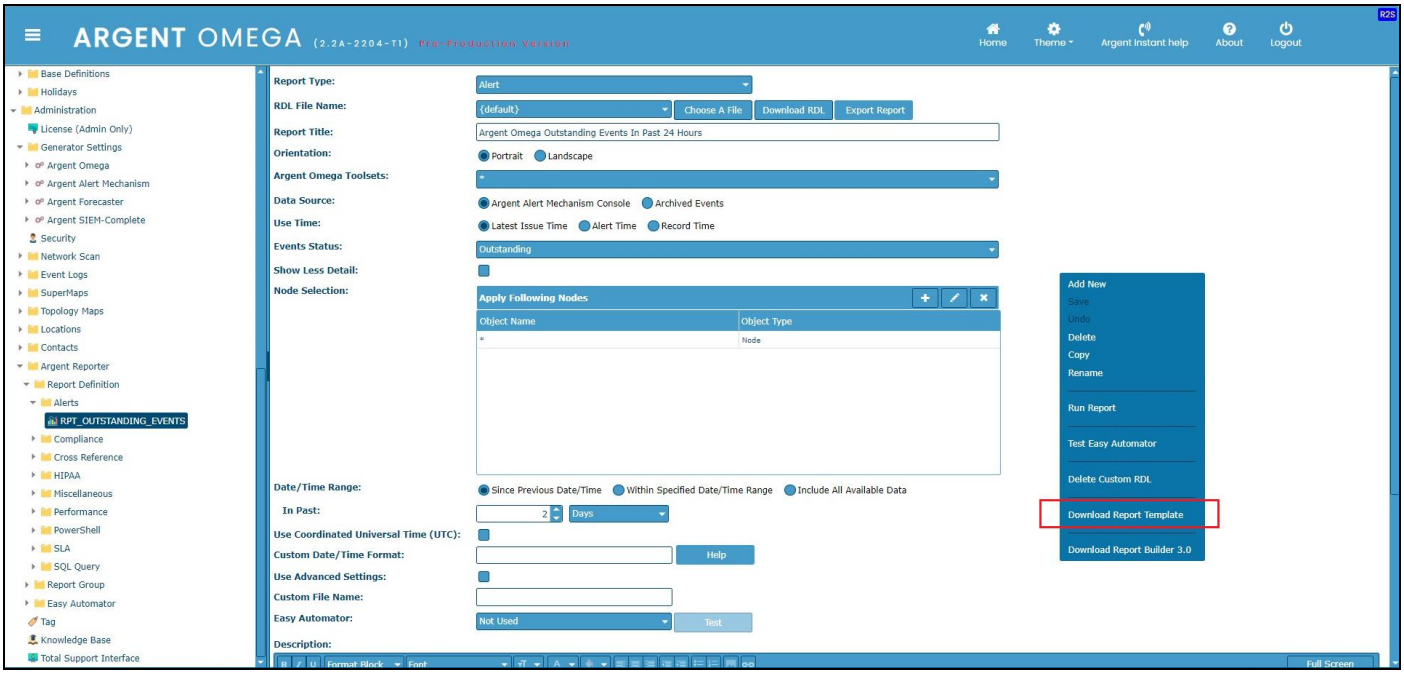
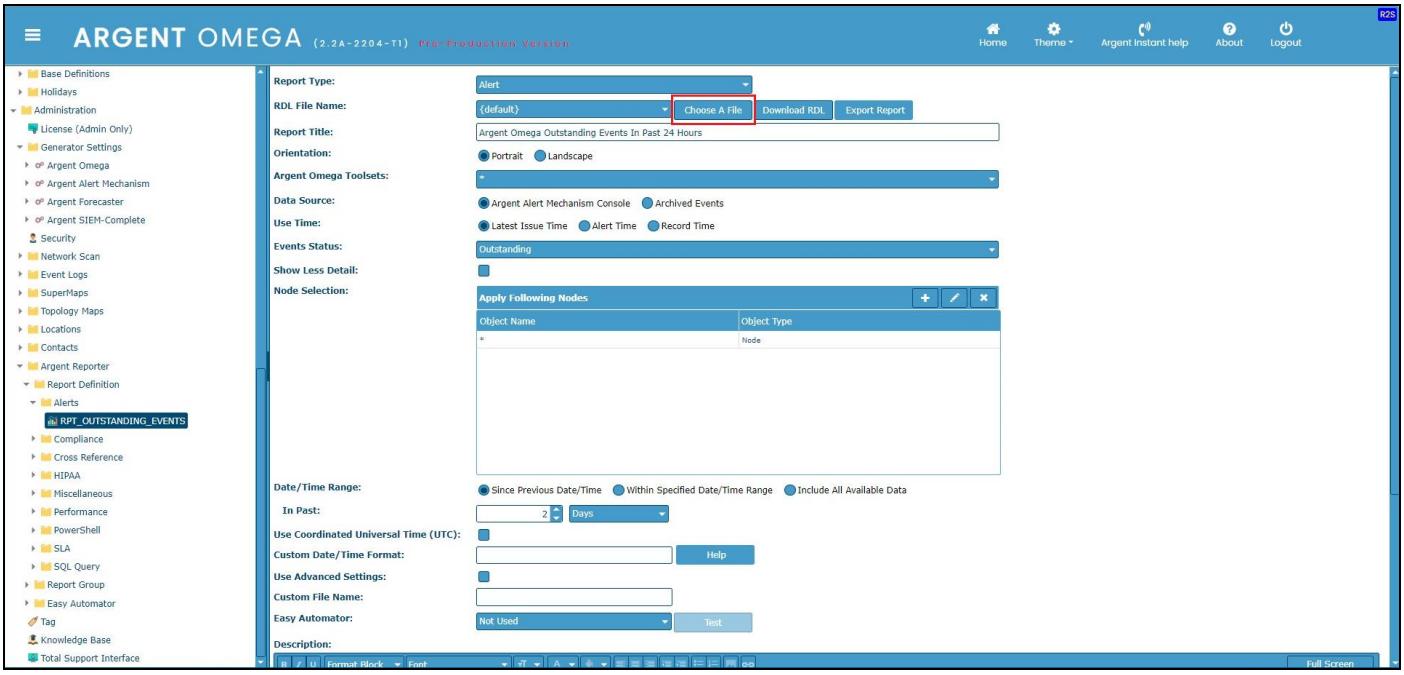
If you need to define a new RDL for Custom Report, to maintain report consistency, download Template RDL:



To select a user RDL, click on button '**Choose A File'** to upload RDL:



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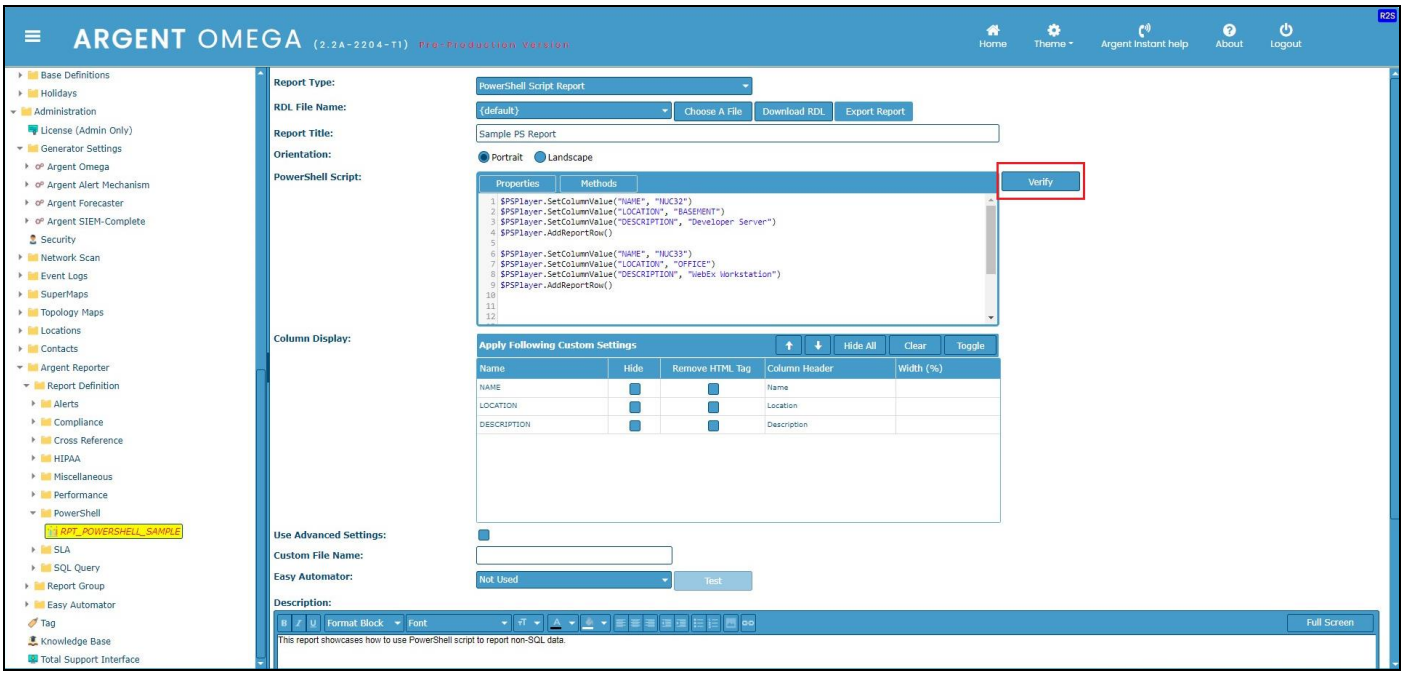
While Report Builder is very powerful, it was created to report on SQL Server data. In other words, you must have a working SQL Server machine. SQL Server is used as a ”crutch,” after RDL file is defined, it can be used in Argent Reporter without talking to the SQL Server ever again.

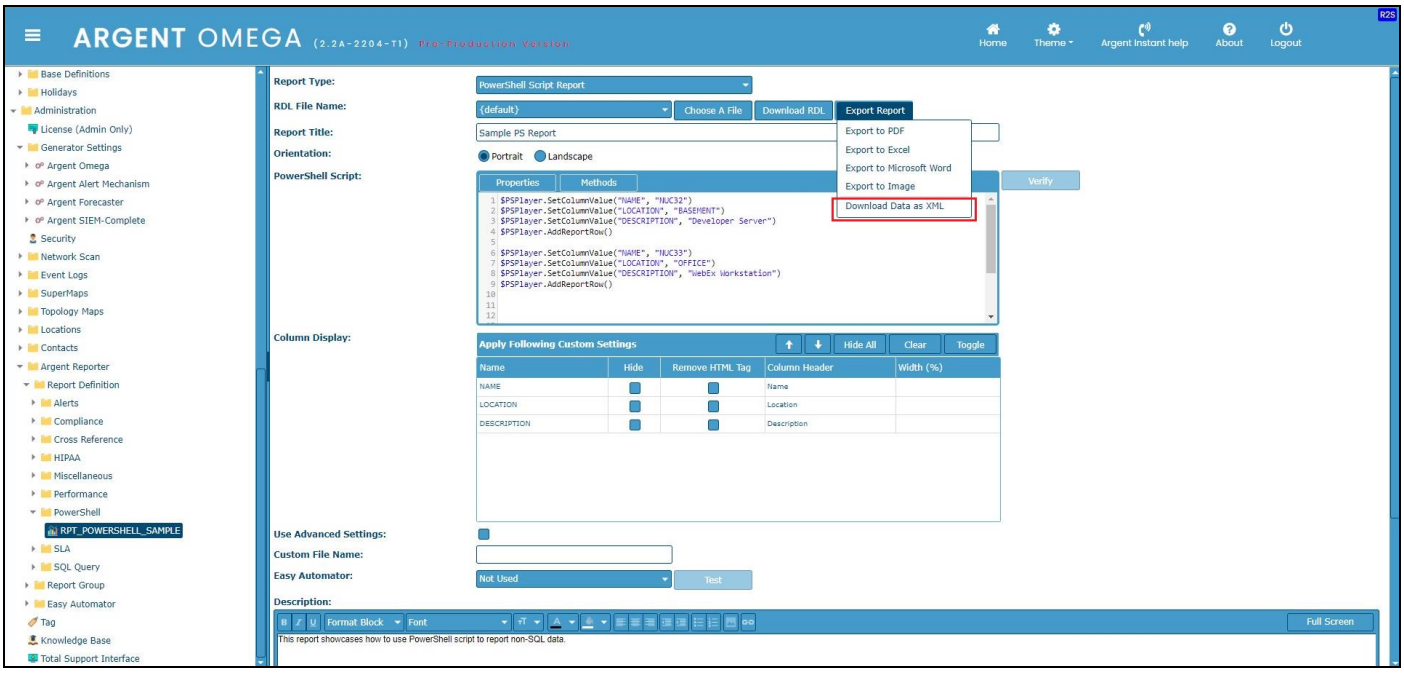
This is usually true when doing PowerShell Script report on non-SQL data. How to do it?

Step 1: Define a new PowerShell Script report.

Step 2: Click on ‘**Verify**’ button to make sure PowerShell Script generates data:



Step 3: Download XML data:



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Step 4: Import XML data to create SQL table. Run

C:\Argent\ArgentOmega\ ArgentReporterSampleXml.exe xml_data_file_path

Step 5: Now, user has a new SQL table matching the report name in the Argent Omega database. Assuming Argent Omega uses SQL Server as backend, user can start designing reports using the newly created SQL table.

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