SDM Software GP Reporting Pak 3.1 User Guide

Gaining Insight and Control Over Your Group Policy Deployments



SDM Software, Inc.

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Overview

The GP Reporting Pak helps IT administrators get insight into, and gain control of, Group Policy deployments. It provides three main areas of functionality, all accessible from the main Portal application:

- The Reporting Portal: The Portal contains nearly 40 canned reports related to Group Policy health, optimization, best practices and security. You can run them manually with one click, and can also schedule them for email delivery. The Portal's Dashboard displays graphs showing the trend in number of GPOs within your environments, the most commonly implemented policy areas, and the GPOs that have changed most recently.
- **Group Policy Comparison**: Formerly GPO Compare, this program allows you to compare up to 4 GPOs, including live GPOs, GPO backups, Reporting Pak snapshots and now, RSOP data generated by our **Group Policy Compliance Manager** solution.
- Group Policy Inventory and Analysis: Formerly GPO Exporter, this program allows for advanced inventory and analysis of your GPOs and their settings. It now also provides a whole-domain analysis function that allows you to see how settings apply to OUs, along with any conflicting and duplicate settings within the OU.

What's New

GP Reporting Pak has a new look, and many added features:

- Reporting Pak Portal is now the central launching point for reporting, comparison and analysis
- Portal Dashboard displays key statistics of your Group Policy environment
- Run dozens of dynamic Group Policy reports in your environment with one click
- Schedule reports to have any report emailed to you on a continuing basis
- Group Policy Comparison supports comparing live or backed up GPOs to Reporting Pak snapshots
- Group Policy Comparison supports comparison of **Group Policy Compliance Manager** (i.e. RSOP) collections
- Filter Group Policy Comparison results by same, different and missing settings
- Compare only metadata or metadata and settings or just settings in Group Policy Comparison
- Group Policy Inventory & Analysis offers domain-wide analysis of GPOs, including an "OU view" that shows all settings and any security or WMI filters that apply to a given OU, as well as real time conflicting and duplicate settings analysis, and the ability to generate Reporting Pak snapshots from the analysis view
- Advanced filtering on settings views in Group Policy Inventory & Analysis, to filter on individual columns of data
- Numerous improvements to reporting, PowerShell cmdlets, snapshot generation, user interface, and installer

Requirements

The **GP Reporting Pak** has the following requirements for installation:

- Installed on Windows 10, Windows 11, 2012-R2, 2016, 2019 or 2022
- Installation machine must be domain-joined
- .Net Framework 4.7.2 or above
- Microsoft Group Policy Management Console (GPMC) must be installed

- Minimum of 20MB free RAM, minimum of 100MB free disk space
- Minimum screen resolution: 1280 x 768 pixels
- Recommended display size: 100% or less (some functionality may not render correctly at display sizes above 100%)
- Users have read access to GPOs being reported against
- Users can create Windows Scheduled Tasks (necessary to use the Scheduled Reports feature)
- Reporting across multiple domains/forests requires a trust relationship that allows read access
 from the current user of the product to the destination GPOs. As a rule of thumb, if the GPMC
 can access a domain/GPOs, so can GP Reporting Pak.

Getting Started

Install **GP Reporting Pak** on your domain-joined Windows system. You can install on either a Windows Server or Workstation if 1) the machine is domain-joined to the Active Directory forest you wish to report against, and 2) you **have the Microsoft Group Policy Management (GPMC) feature installed**. The **GP Reporting Pak** setup is composed of two files: an .exe setup "bootstrapper" and an MSI file, as shown in Figure 1 below. The .exe verifies that the .Net pre-requisite is in place, before running the .MSI file, so if you have the correct version of .Net installed you can run the .MSI directly.

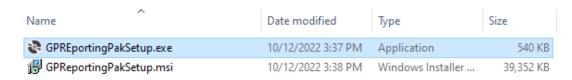


Figure 1 The GP Reporting Pak installer files

Once the installer is run, the program is ready to use. The shortcut to run the Reporting Pak is found with the SDM Software program group on the Start Menu, as shown in Figure 2.

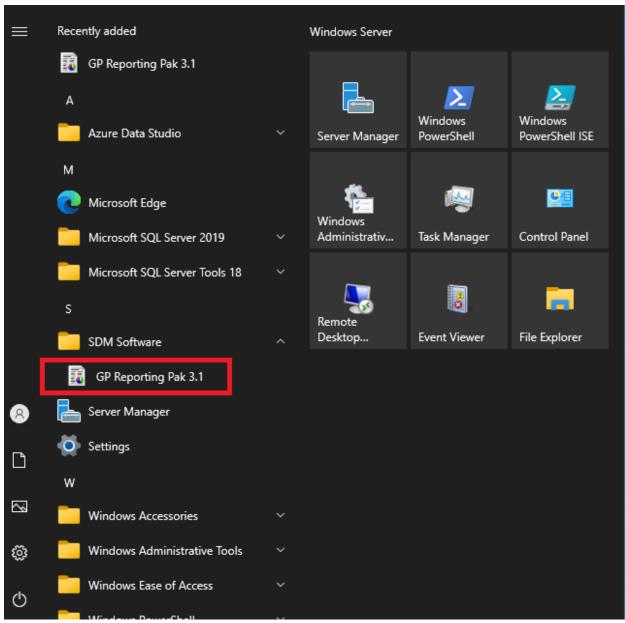


Figure 2 Accessing the GP Reporting Pak

When you launch GP Reporting Pak, you will see the Dashboard below. Click the Refresh button to populate it with the current GPO count on a trend graph, GPOs by Policy Area and a Recent GPO changes list.

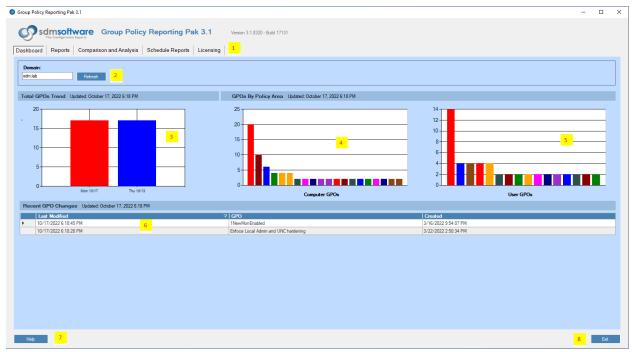


Figure 3 Viewing the GP Reporting Pak Dashboard

Access the online Help file (**Callout 7**) or exit the application (**Callout 8**) from the status bar. Five tabs (**Callout 1**) provide the program's functionality:

- **Dashboard**: Displays a summary view of your environment
 - Total GPOs Trend: (Callout 3) A daily count of GPOs within the domain of focus (Callout
 2). The graph shows the last week of GPO counts.
 - GPOs by Policy Area: (Callouts 4 & 5) A breakout of which computer and user policy
 areas are most implemented across all GPOs within the domain. Hover your mouse over
 a bar to see which policy area it represents.
 - Recent GPO Changes: (Callout 6) A list of GPOs that have been modified in the past week.
- Reports: Provides access to the built-in reports, as shown in Figure 4 below, within four categories: Group Policy Health, Group Policy Optimization, Group Policy Best Practices and Group Policy Security Assessment.

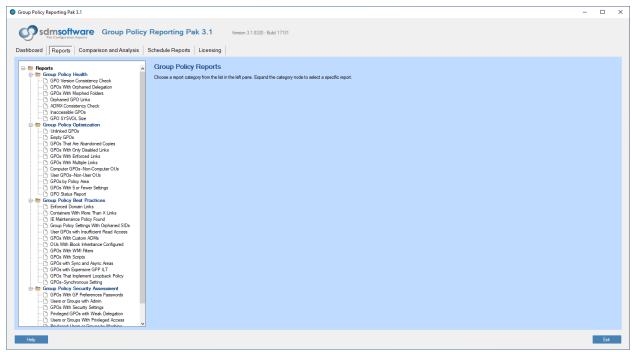


Figure 4 Viewing the Built-in Reports

Comparison and Analysis: Launch the current GPO Compare or GPO Exporter from here (see Figure 5). For GPO Exporter, select "Inventory & Analysis"; for GPO Compare, select "Group Policy Comparison."

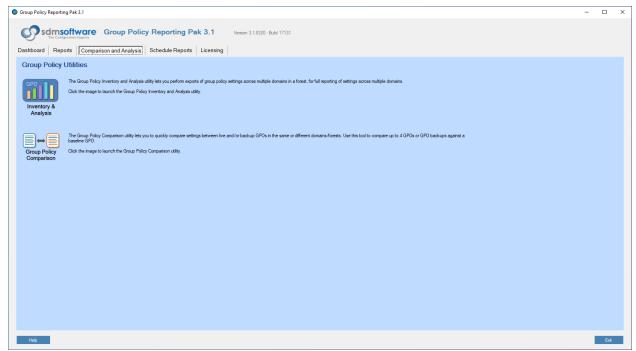


Figure 5 GPO Comparison and Analysis tab

• Schedule Reports: Set up scheduling of any of the Reporting Pak Portal built-in reports here, to be emailed to up to 5 recipients. Report formats include PDF, HTML and CSV. Figure 6 shows the options available when setting up a report schedule.

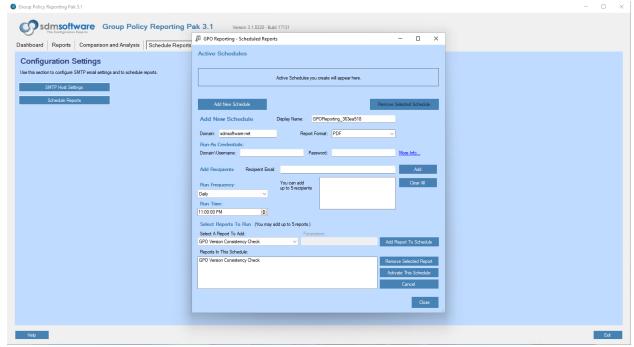


Figure 6 Viewing report scheduling options

• **Licensing**: Displays the current licensing of the product (see Figure 7), including the type of license, when the license expires (if applicable) and the operation or GPO count remaining (if applicable).

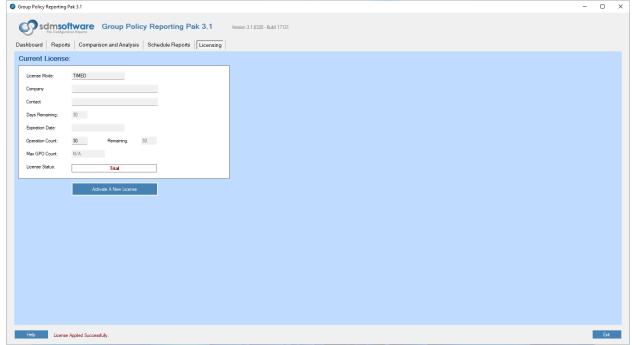


Figure 7 Viewing the Licensing tab.

Licensing

Licensing can be of the following types:

- Demo: Installed when you download an evaluation of the GP Reporting Pak, it provides a 15-day evaluation and allows up to 5 reporting operations. A reporting operation consists of running one of the reports from the Reports tab, or performing a GPO export or GPO comparison from the Comparison & Analysis tab. The Demo license is fully functional except that report scheduling is not available.
- **Timed**: Provides an extended amount of time to further evaluate the software, with a limit to the number of reporting operations allowed. A Timed license is fully functional **except** that report scheduling is not available.
- Customer & Unlimited: Provided when a license for the Reporting Pak is purchased. A perpetual
 customer license will have a GPO count (or operations count) and no expiration date. A term-based
 customer license will have an expiration date. Unlimited licenses behave similarly but do not have a
 GPO or operations count. Note that the GPO count registers unique GPOs reported against. So, if
 you have a 300 GPO license, you can report against 300 unique GPOs before the license is exceeded.
 Deleted GPOs do not count towards the total.

Your current license information is available on the **License** tab within the product, as shown in Figure 7. The Licensing tab is also where you can **Activate** a new license that you've received from SDM Software. To activate a license, click the **Activate A New License** button and copy/paste the contents of your license file into the dialog. Or browse to the license file to select and upload it. Click the **Activate** button to activate the new license. The license information screen will update after a few seconds with the new license information.

PLEASE NOTE: The general reports available from the Reports tab run against an entire domain (or forest) at once. As such, they count against your license count. If you are licensed for a subset of GPOs within a given domain, and try to run one of these domain-wide reports, it will trigger a license exceeded message. You will then have only 3 additional reports that you can run before the license is invalidated. Please ensure that you either don't run global reports in this circumstance, or have sufficient licenses to be able to report against an entire domain.

Using the Product

Reports

Run interactive reports across a variety of Group Policy-related categories:

- Group Policy Health: See possible problems with Group Policy deployments, including areas like
 inconsistent GPO versions between AD and SYSVOL, morphed folders between SYSVOL replicas
 and inaccessible GPOs.
- **Group Policy Optimization**: Optimize, clean up and improve your Group Policy deployments. Includes reports such as Unlinked GPOs, Empty GPOs, and more advanced reports like user GPOs that are linked to OUs without user accounts (or vice-versa).

- Group Policy Best Practices: Determine if your GP deployment is following best practices for Group Policy usage with reports that reveal GPOs such as those that still contain deprecated IE Maintenance policy, with Expensive GPP Item-level targeting, and that contain custom ADMs.
- **Group Policy Security Assessment**: Assess your Group Policy deployment from a security perspective, looking at ways that GPOs can compromise your security posture. This includes GPOs that still contain GP Preferences passwords, GPOs that implement security settings, and users or groups that have been granted privileged access via Group Policy.

Generating a Report

After clicking the Reports tab header, select a report name from the left-hand Reports tree, as shown in Figure 8. You can search for a report by name by right clicking the top Reports node and typing a keyword. Press F3 to find the next result, and Esc to hide the Search text box.

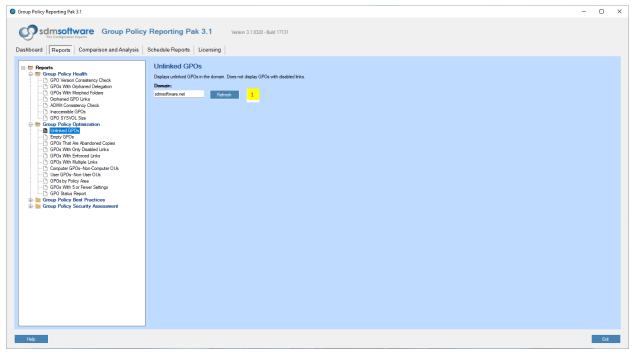


Figure 8 Selecting a report to run

Descriptions of each report, including what that report is used for, are found under the report title on the right-hand pane, just above the Domain text box.

Enter which domain you want to run the report against in the Domain text box (**Callout 1**). The default domain is the user's current AD DNS domain name but type any trusting AD domain into the text box, as long as the domain is accessible, and you have read access to its GPOs. Note that you must use the DNS name of the domain. Click the **Refresh** button to generate the report.

Note: Some reports are forest-wide rather than domain-wide. In those cases, enter the name of the root DNS domain of the forest you wish to report against.

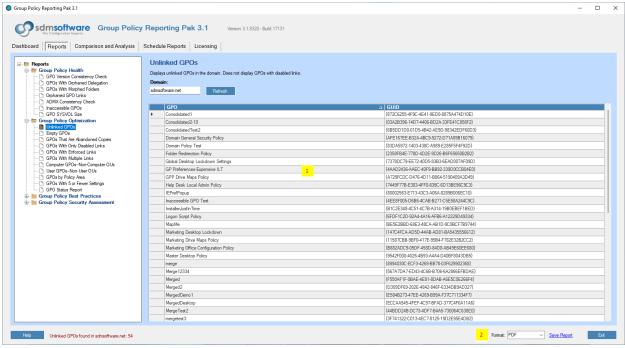


Figure 9 Viewing a generated report

Once the report is generated, the results of the report will appear in the grid view (**Callout 1 in Figure 9**). You can click on any of the column headers in the grid to sort the results. You can also select one or more rows in the grid and press **Ctrl-C** on the keyboard to copy those rows to the clipboard. If you want to generate a hard copy of the report, select the report format from the dropdown list at **Callout 2 in Figure 9**, then click "Save Report" and select where to save your report.

Group Policy Comparison

To launch the new Group Policy Comparison capability, select the Group Policy Comparison icon shown on the **Comparison and Analysis** tab. Figure 10 shows the program's main window.

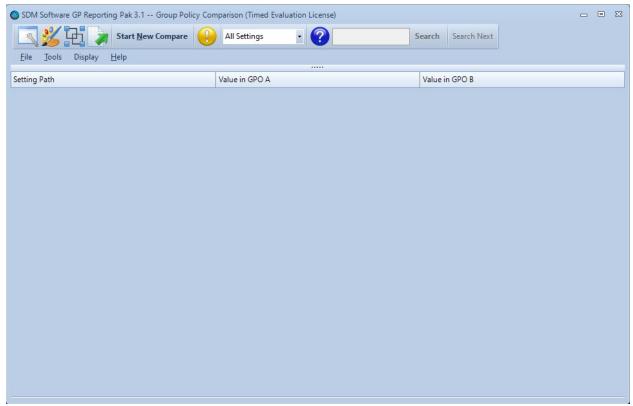


Figure 10 Viewing the Group Policy Comparison tool

Key Features

- Compare up to 4 live or backed-up GPOs, SDM Software GP Reporting Pak snapshots or SDM Software GP Compliance Manager RSOP collections
- Filter differences, similarities and missing settings within a comparison
- Create reports of GPO comparison results, with customized report titles
- Include metadata for each compared GPO, or compare only metadata
- Perform command-line comparisons with the PowerShell module

Performing a Comparison—selecting a GPO/collection

To create a Group Policy comparison, click the **Start New Compare** button. The first time through, you will see a popup to explain how to perform comparisons. Unclick the "Show this Tip Next Time" checkbox if you don't want to see the popup again. You will then see the "Select GPOs to Compare" dialog, with the opportunity to select two to four GPOs, snapshots or collections to compare, as shown in Figure 11.

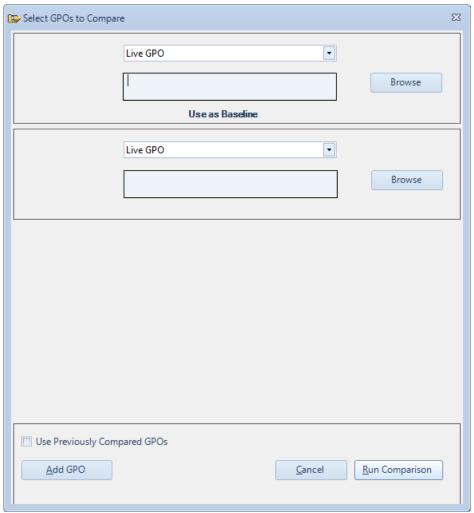


Figure 11 The GPO selection dialog

If you wish to compare more than two GPOs, click the **Add GPO** button at the bottom of the screen. If you want to compare live GPOs select the **Browse** button for the first GPO slot, and you will see a GPO browse dialog that allows you to select a **live** GPO in each domain, as shown in Figure 12 below.

NOTE: If you'd like to repeat the GPO selections used in the last comparison, check the "Use Previously Compared GPOs" checkbox. Those previously selected GPOs, snapshots or collections will be populated in the GPO picker.

NOTE: The first GPO (or backup, snapshot or collection) that you select in the GPO Picker is considered the baseline. All subsequent selections are compared against the baseline.

Select a GPO to Compare	23
1 sdmsoftware.net Populate List 2	
Submit Enter a search filter to narrow list	
Select a GPO and press Submit or enter a new DNS Domain Name	
Name	^
Americas Computer Security Policy	
Americas Desktop Security Policy	
Americas Drive Mapping Policy	
Americas Executive Lockdown Policy	
Americas User Lockdown Policy	
Client Desktop Policy	
Client General Policy	
Default Domain Controllers Policy	
Default Domain Policy	
Desktop Security Settings	
Domain General Security Policy	
Global Computer Security Policy	
Global Desktop Lockdown Settings	
GP Preferences-Expensive ILT	
GDD Drive Mans Dolicy	
Select a GPO. Double-click or Enter to confirm	.::

Figure 12 Viewing the Live GPO Picker

Specify the domain for which you wish to see GPOs by typing a DNS domain name in the textbox at **Callout 1** in Figure 12 above. In a multi-domain forest, you can also select another domain in the currently selected forest, by clicking the ellipsis button (**Callout 2**), which will bring up a dialog to select another domain in the forest.

Once you either select or type a new domain name into the text box, click the **Populate List** button to refresh the list of available GPOs. If you want to filter the list of the GPOs, you can do a partial name search using the filter dialog (**Callout 3**). Once you start typing, the list of GPOs will filter down to match typed characters. To select a GPO, highlight it using your mouse or keyboard and press Enter, double-click the entry, or click the **Submit** button.

NOTE: You can also copy/paste the name of a GPO into the GPO Picker dialog (see Figure 13). The format for the GPO name needs to be in the form of <DNS Domain Name>\<GPO Name>. As an example: mycompany.com\Default Domain Policy.

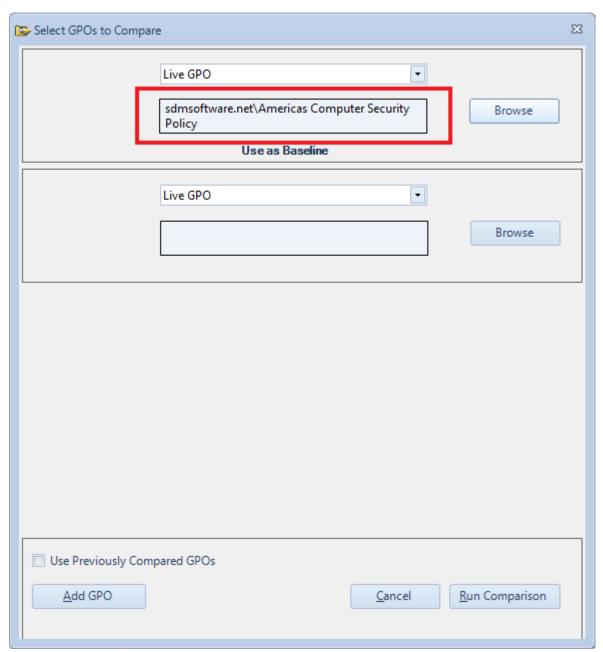


Figure 13 You can copy/paste or type the name of the GPO into the Picker

Selecting Backups, Snapshots or GPCM Collections

In addition to live GPOs, you can compare GPMC backups, GP Reporting Pak snapshots (snapshots are a file type created by the GP Inventory & Analysis program that contain collections of settings from one or more GPOs) and GPCM Collections from our Group Policy Compliance Manager program (RSOP data). You can compare any combination of these 4 types of GPO settings.

GPMC Backups

To select a GPMC Backup (a GPO backup created by GPMC), select "GPO Backup" from the GPO type Dropdown, then click the **Browse** button. You will see the GPO selection dialog for backups as shown in Figure 14 below.

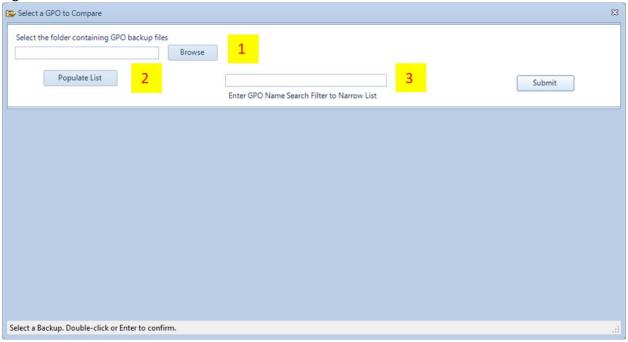


Figure 14 Selecting GPO backups

Type in or browse to (Callout 1 above) the folder path that contains your GPO backup. Once you enter a path, the list below it will be populated with any GPMC backups found in that folder. If you manually enter a folder path, click the Populate List button (Callout 2) to refresh the list from that path. If you need to filter the list of backups by GPO name, use the filter dialog (Callout 3). When you start typing a full or partial name into the filter text box, the list of backups will automatically filter down to just those GPOs containing a filter match. You can click on column headers to sort the GPO backup items by column. Once you select a GPO backup, press Enter on the keyboard, double-click the entry with the mouse, or click the Submit button to choose that GPO backup for comparison.

GP Reporting Pak Snapshots

GP Reporting Pak Snapshots can be compared to each other and, new to this version, to live GPOs, backed up GPOs or GPCM collections. A snapshot is a special format of a GPO settings file generated by the GPO Inventory and Analysis tool (GPO Exporter), and contains a list of settings across one or more GPOs. To compare a snapshot, select the "GP Reporting Pak Snapshot" from the GPO Picker dropdown, then select Browse to bring up the GPO Reporting Pack selection dialog, as shown in Figure 15.

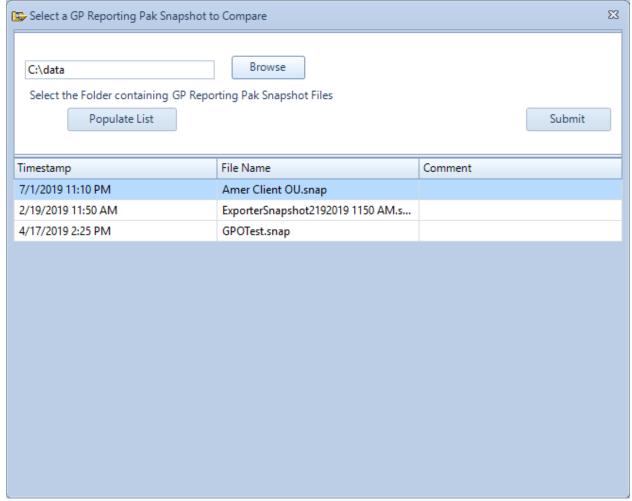


Figure 15 Selecting a GP Reporting Pak Snapshot for comparison

Type in or browse to a file folder path containing snapshot (.snap file extension) files. If you manually enter a path, use the **Populate List** button to refresh the list of snapshots. Once the list appears, you can click on the column headers in the listing to sort the entries by that column. Once you select a file, click Enter, double-click the entry with the mouse, or click the **Submit** button to select that snapshot for comparison.

GP Compliance Manager Collections

The newest type of comparison you can perform is from SDM Software's **Group Policy Compliance Manager** (GPCM) product, which collects RSOP data from enterprise endpoints to a central SQL Server database. If you own GPCM, you can use this Reporting Pak integration to compare RSOP settings to GPOs or snapshots.

To use this feature, first set up the integration with the GPCM database. Access the setup from the GP

Comparison menu under **Tools, Integrations, Configure GPCM Datasource**, or from the toolbar (You will see the dialog shown in Figure 16.

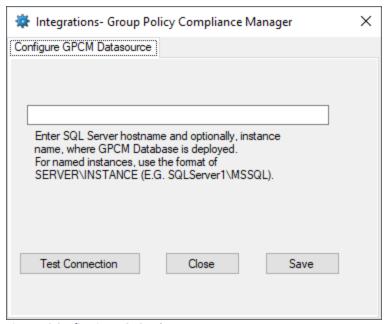


Figure 16 Configuring a GPCM datasource

Enter the server (and optionally, instance name in the format of <server name\instance name>) of the GPCM database server. The integration assumes the default database name of GPCM. Contact SDM Software Support if you have named your GPCM database something different from the default. Once you enter the server/instance name, click the Save button. Click the Test Connection button to see if your current user can connect to and read the GPCM database. Click the Close button to complete the integration.

Once the integration is set up, select the "GP Compliance Manager Collection (RSOP)" option from the dropdown of the GPO picker, then select the Browse button. The "Select GPCM Collection" dialog will appear. In the textbox, enter the full or partial name of a computer from which you wish to collect GPCM RSOP data. Click the Search button to return the list of GPCM collections available for that machine, as shown in Figure 17.

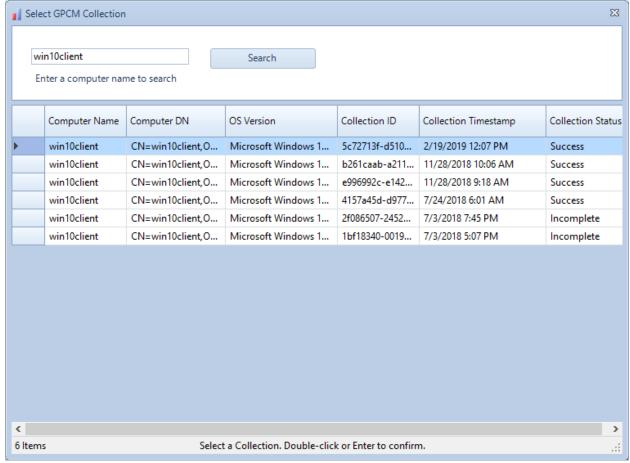


Figure 17 Selecting GPCM collections for comparison.

Select the collection you wish to compare, then either press Enter on the keyboard or double-click with the mouse.

Performing a Comparison—Viewing the Results

Comparison results of live GPOs, backups, snapshots or collections appear in the same format. A grid view will appear as in Figure 18 below.

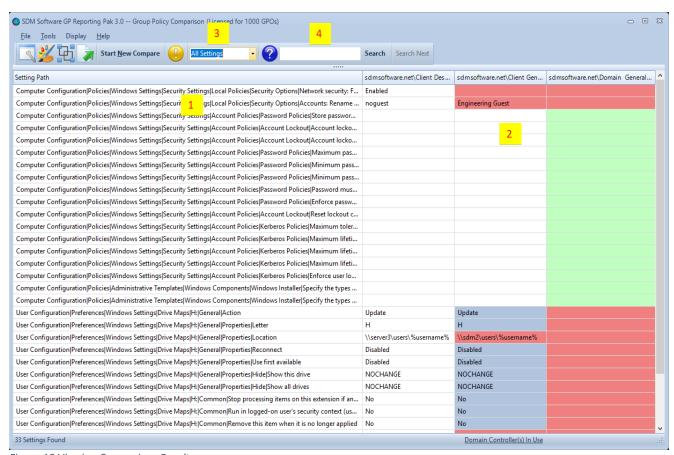


Figure 18 Viewing Comparison Results.

Results in the grid view are organized by the Group Policy setting path in the first column (**Callout 1**), and in subsequent columns (**Callout 2**) the values of each setting are shown for each GPO. The first GPO column listed is always the **baseline** against which the other GPOs are compared. Hover over column headers to see details about each GPO, including GPO name, domain name, GUID and created and last modified dates. Each column header can be clicked to sort that column.

The contents of the grid show the differences in setting values for each compared object, using a color-coding system (which can be adjusted). By default, the colors correspond to the following:

Blue: Setting values that are the **same** as the baseline

Red: Setting values that are **different** from the baseline

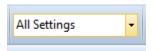
Green: Setting is **missing** from the baseline (i.e. only found in the non-baseline GPO)

NOTE: You can change the colors that are used to represent each difference type by selecting Display, Color Palette from the menu or choosing the () icon.

Searching and Filtering the Results

Search the grid results for keywords with the Search dialog (Figure 18, Callout 3). Enter full or partial keywords and click the Search button. If there is more than one result, the Search Next button is highlighted and pressing it will take you to the next instance of that keyword, until no more matches are found.

You also have the ability to filter the results that you see in the grid based on the type of difference. The filtering dropdown is shown on the toolbar here:



Change the view of data based on 4 filters:

All Settings: All rows

Different Settings: Rows that have at least one GPO with different values (either different or missing) from the baseline value for that setting

Missing Settings: Rows that have at least one GPO with no value for a given baseline setting

Same Settings: Rows that have at least one GPO with an identical value to the baseline value for that

setting

As you select each option from the dropdown, the results in the grid will update to show the new view.

Performing a Comparison—Reporting the Results

There are two options for outputting the results of a Group Policy comparison. 1) Select any number of cells in the grid with your mouse, right-click the selection and choose to either output the contents to the Windows clipboard, or save it to a CSV file, as shown in Figure 19.

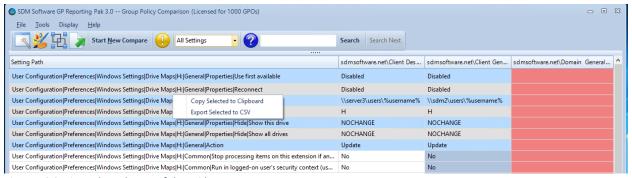
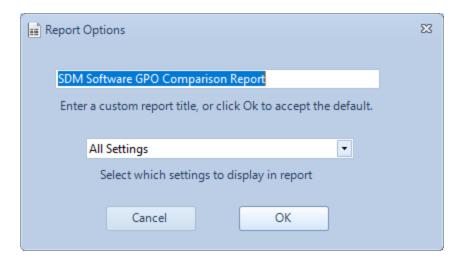


Figure 19 Saving selected rows of the grid

2) Select the **File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report** menu item or click the (**Select the File, Comparison Report the File, Comparison Report the File, Comparison Report the (Select the File, Comparison Report the File, Comparison Report the File, Comparison Report the (Select the File, Comparison Report the File, Comparison Report the File, Comparison Report the (Select the File, Comparison Report the File, Comparison Report the (Select the File, Comparison Report the File, Comparison Report the (Select the File, Comparison Report the File, Comparison Report the (Select the File, Comparison Report the File, Comparison Report the (Select the File, Comparison Report the File, Comparison Report the File, Comparison Report the (Select the File, Comparison Report the File)** (**Select the File, Comparison Report the File, Comparison Report the (Select the File, Comparison Report the File, Comparison Report the (Select the File, Comparison Report the File, Comparison Report the (Select the File, Comparison Report the File, Comparison Report the (Select the File,**



Click **OK** to generate the report, and a new window will appear with the report output, as shown in Figure 20.

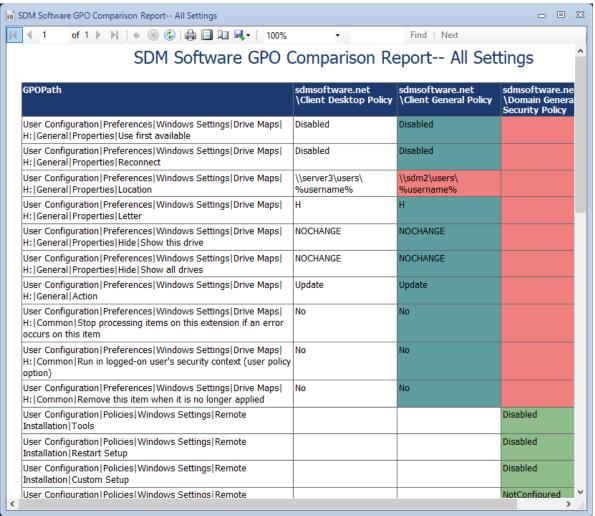


Figure 20 Viewing Group Policy Comparison report output

Print the output of the report or save it to **Excel**, **PDF** or **Word**, using the save button () found on the toolbar.

Modifying Comparison Options

Modify comparison options before you perform a comparison by selecting **Tools, Comparison Options** from the menu, or clicking the toolbar icon . The Group Policy Comparison Options dialog displays, as in Figure 21.

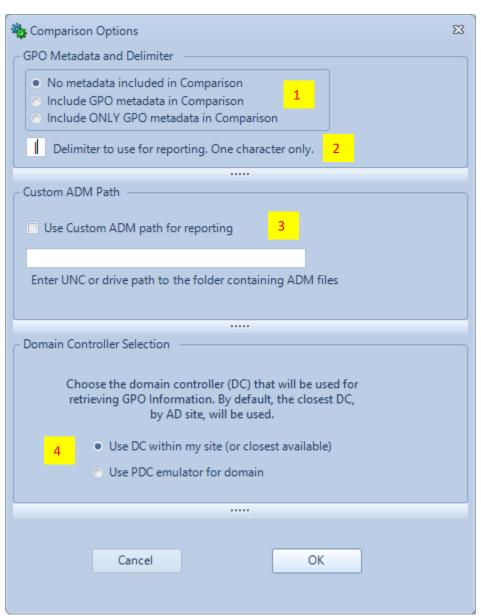


Figure 21 Viewing Comparison Options

Callout 1 - Metadata about a GPO includes information such as GPO GUID, last modified date, created date, GPO permissions, GPO links and WMI filters. By default, metadata is **not** included in a comparison, but you can either include GPO metadata in a comparison or, **only** include metadata in the comparison. Note that metadata is indicated with the tag "METADATA" in the setting path that is listed in the grid view result.

Callout 2 - By default, all setting paths are delimited using the | character (e.g. *Setting Path User Configuration | Policies | Administrative Templates | Start Menu and Taskbar | Remove Documents icon from Start Menu | State*) replace the | symbol in this text box, if desired, with any **one** character.

Callout 3 - Custom ADM paths are required when you store legacy ADM files somewhere other than in the SYSVOL portion of your GPOs. If you haven't converted to ADMX and use ADM files to render and show settings within GP Editor and GPMC reporting, check the box in this section to "Use Custom ADM path for reporting." Specify a UNC or mapped drive path to the location where the ADM file(s) reside so that Group Policy Comparison can report Admin Template settings that use them.

Callout 4 – Configure which AD domain controller is used to generate the Group Policy comparisons. This only applies to live GPOs and backed up GPOs. The default is to use the closest available DC (based on AD site affinity) but specify here to "**Use PDC emulator for domain**" to use the PDC-emulator DC to generate the report.

Once an option is set, it will be remembered through application restarts, so be sure to reset it, if needed, before running additional comparisons.

Viewing the Error Log

The error log displays any issues encountered when parsing Group Policy settings. The error log icon on

the toolbar () is highlighted if errors are detected. Click the icon, or select the menu item **Tools**, **View Error Log** to view error details. If needed, you can copy/paste the contents of this log to send to SDM Software Support.

Group Policy Inventory & Analysis

To launch the new Group Policy Inventory & Analysis capability (formerly GPO Exporter), select the Inventory & Analysis icon shown on the **Comparison and Analysis** tab. This will bring up a separate window, as shown in Figure 22.

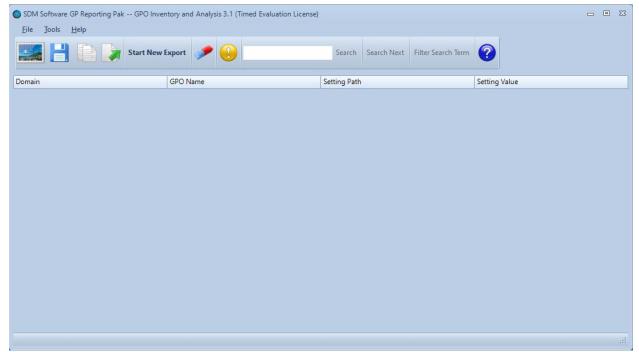


Figure 22 Viewing the GP Inventory & Analysis Tool

Key Features

- Interactively view GPO settings by OU with domain-wide analysis mode
- Export from a flat list of GPOs
- Filter settings based on conflicting, duplicate, not conflicting, not duplicate, and not conflicting or duplicate results
- Automatically export all settings inherited by an OU
- Filter settings data with column-wise keyword filtering
- Generate GP Reporting Pak snapshots from all views to allow integration into GP Comparison and GPO Migrator
- Perform command-line exports with the PowerShell module

Performing a GPO Analysis

Click the **Start New Export** button and you'll be presented with the Export Options screen shown in Figure 23.

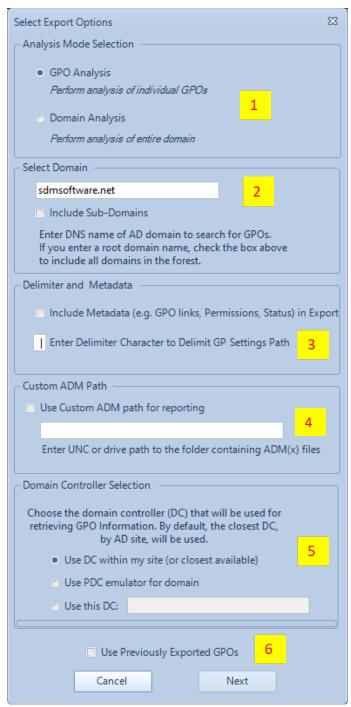


Figure 23 Viewing Export Options

Callout 1 - GP Inventory & Analysis supports two analysis modes—**GPO Analysis** and **Domain Analysis**. Select your option here.

Callout 2 - Enter the domain whose GPOs you wish to export. If you select the DNS domain of a forest root domain, then check the "Include Sub-Domains" text box and all GPOs for the forest will be included in the next GPO picker dialog.

Callout 3 - Include metadata (see the description of metadata above in the <u>Group Policy Comparison</u> <u>Options</u> section) with this checkbox, and modify the GPO setting path delimiter from its default of | to another character, if desired.

Callout 4 - Set a custom path for any ADM files that may be in use, as described in the <u>Group Policy</u> Comparison Options section.

Callout 5 - Choose the DC against which you wish to run GPO settings exports. The default is to use a DC in the closest site to the machine where the tool is running, but you can choose to use the PDC-emulator DC or a named DC. If you select the named DC option, enter the fully qualified domain name of the DC you wish to use. Note that this last option **should not be used** if you are selecting multiple domains to export (from **Callout 2**).

Callout 6 - Check "Use Previously Exported GPOs" to populate the selected GPOs list in the next dialog with the GPOs that you exported in the last export for this session.

Click the **Next** button to proceed to the "Select GPOs to Export" dialog, as shown in Figure 24. You can select GPOs in one of two ways.

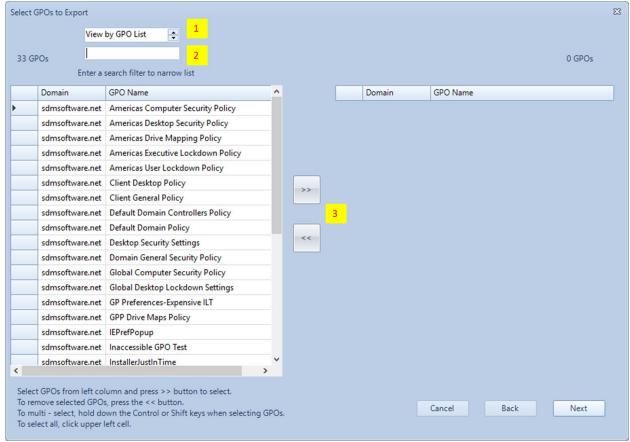


Figure 24 Selecting GPOs to Export

View by GPO List

The default view is a list of all GPOs in the selected domains (i.e. "View by GPO List" as shown in **Callout**1. Highlight one or more GPOs to export or click the upper left cell to select all GPOs. Then click the

upper >> button (Callout 3) to move the selected GPOs to the right-hand list. To remove a GPO (or GPOs) from the selected list, highlight those GPOs and press the << button.

Filter the list of available GPOs with the filter textbox (**Callout 2**), by typing the full or partial name of the GPO(s).

View by GPO Links

You can choose to list GPOs by how they are linked to the selected AD domain. Click the down arrow on the dropdown textbox shown in **Callout 1** on Figure 24 and select "View by GPO Links." An AD tree view displays, listing GPOs that are linked to each container, as shown in Figure 25.

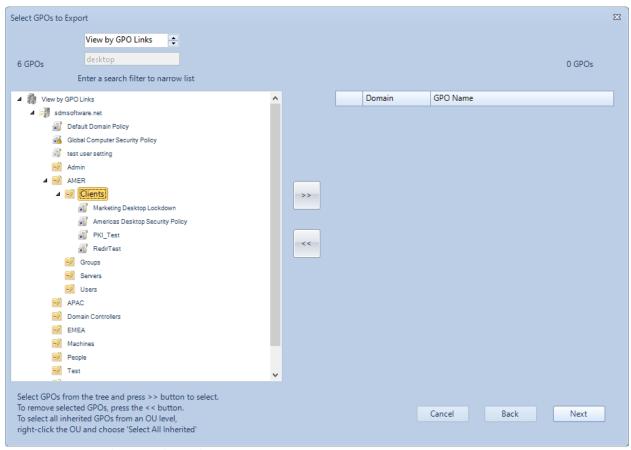
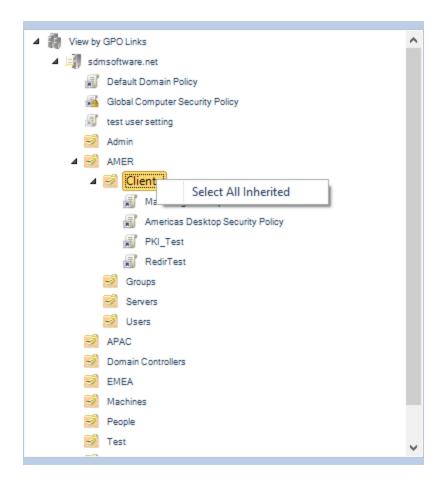
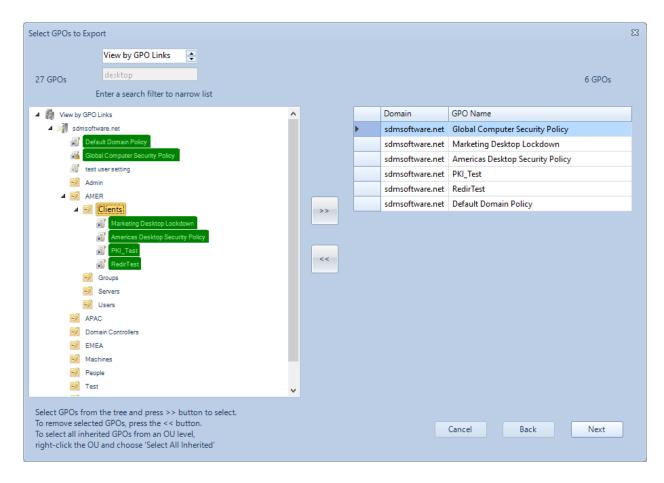


Figure 25 Using View by GPO Links to select GPOs

Select individual GPOs and click the >> button to add them to the right hand list. You can select **all** GPOs inherited at a certain level of the tree by right-clicking an OU (or domain) and choosing the "Select All Inherited" Context menu, as shown here:



All GPOs inherited at that container level will be highlighted and added to the selected list, as shown here:



This feature takes into consideration block inheritance flags on parent containers as well as enforced flags on GPO links.

The next step is to choose which policy areas to include in the export. Click the **Next** button on the GPO selection dialog to get to the policy areas screen.

Choosing Policy Areas

Figure 26 shows the policy areas selection screen.

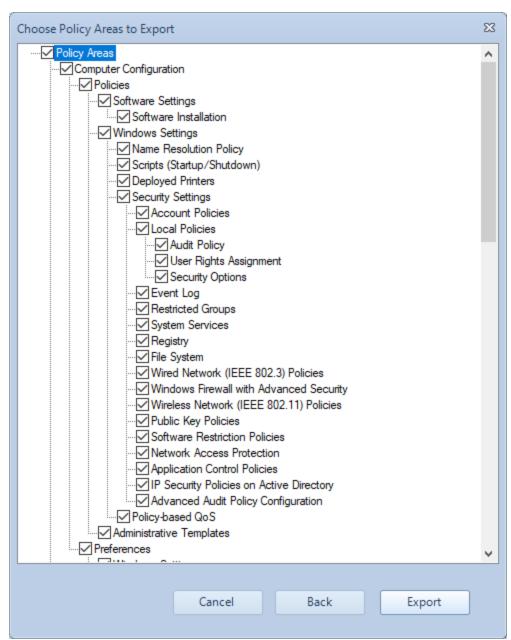


Figure 26 Viewing the Policy Areas selection screen

Limit the policy areas included in the export here. All areas are selected by default. Clear the list by unchecking the top-level "Policy Areas" node. You can then select individual or groups of nodes under the Computer or User Configuration sides to include. Click the **Export** button to begin the export process.

Viewing the Results

An export can take anywhere from seconds to minutes, depending on how many GPOs are being exported and how close the DC is. Exported settings will appear in a grid view, as shown in Figure 27.

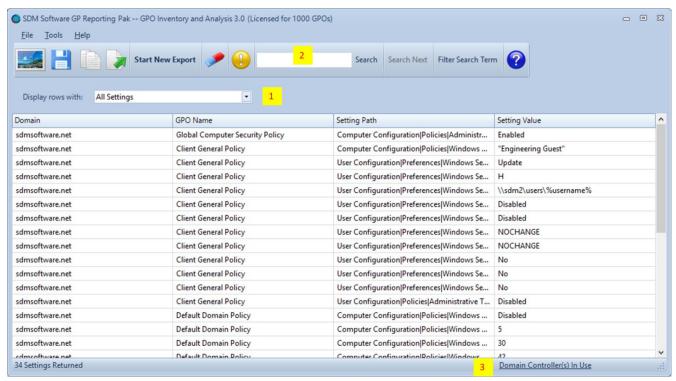


Figure 27 Viewing the results of an export

The results are listed by domain and GPO name. Click on any column header to sort the list by that column. To copy settings data to the Windows clipboard, select multiple rows with the mouse or keyboard, right-click and select "Copy highlighted rows to Clipboard," then click the Copy to Clipboard

toolbar button () or select the **Tools**, **Copy Highlighted Rows** menu item.

Select what types of settings to display using the "Display rows with" dropdown (**Callout 1**). The options include:

- All Settings: All exported rows
- Conflicting Settings: Rows from GPOs where the setting path is identical, but the setting value is
 different
- Duplicate Settings: Rows from GPOs where the setting path is identical, and the setting value is identical
- Not Conflicting Settings: Rows that do not contain conflicting settings
- Not Duplicate Settings: Rows that do not contain duplicate settings
- Not Configure AND NOT Duplicate: Rows that do not contain conflicting and do not contain duplicate settings

Search or filter the data based on full or partial keywords (Callout 2). Search terms are case insensitive. You have the option to search all columns within the data for a keyword, or a specific column. To search all columns, simply enter the text to search for and click the Search button. If there is more than one result, the Search Next button is highlighted, and you can click it to see subsequent search results. To filter results on the search term, click the Filter Search Term button.

Perform a search or filter of keywords within a specific column by using the search term format **columnName:searchterm** where columnName is one of the following:

- Domain
- GPOName
- SettingPath
- SettingValue

Note that the column names have no spaces in them. For example, to search only the Setting Value column for a value of "administrator" enter the following: **SettingValue:administrator**

See which domain controllers were used to enumerate settings within a selected domain, by clicking the link shown in Figure 27, **Callout 3**. A dialog will appear showing the DC that was used for each domain.

Saving to Snapshot

A Snapshot is a file with a .snap extension that can be used across the GP Reporting Pak and within our GP Migrator product. Any filters or display types are retained in the Snapshot. To create one, type Ctrl+S

from the keyboard, select the **File, Save Snapshot** menu item, or click the Save Snapshot button () from the toolbar. The Snapshot Manager dialog displays as shown in Figure 28.

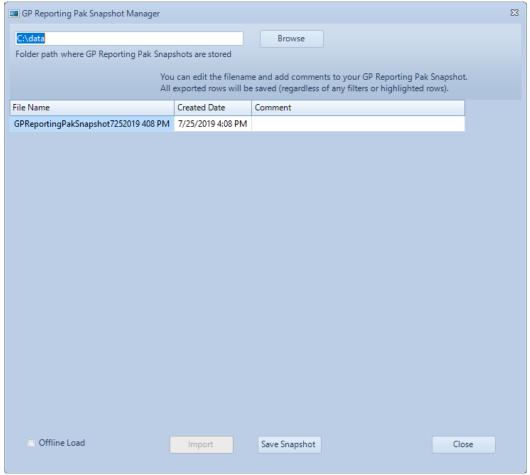


Figure 28 The Save Snapshot Dialog

On first display, a snapshot folder path will need to be defined. Click the **Browse** button to find and select a folder location or type that location into the Folder Path text box. The grid displays an entry with a default name of the snapshot file that will be created from this current export. Select the **File Name** cell to change the name, and optionally add a comment by typing in the **Comment** cell. The comment will be displayed in the Snapshot Manager dialog, making it easier for you to find the snapshot you want to load in the future. Click the **Save Snapshot** button to save the file and close the dialog.

Performing a Domain Analysis

Domain Analysis presents an AD tree view of all GPOs in a domain and displays some additional data over a GPO Analysis.

Select the **Domain Analysis** radio button shown in the dialog in Figure 23. The screen in Figure 29 displays.

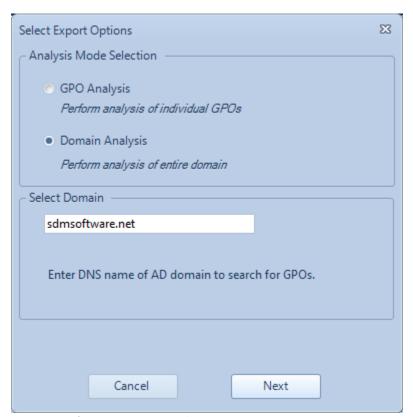


Figure 29 Performing a Domain Analysis

Enter the DNS domain name of the AD domain you wish to analyze and click the **Next** button. A message displays to warn that the domain analysis may take a while. Click **Yes** to start the export.

Once the export completes, you will see a screen similar to Figure 30 below.

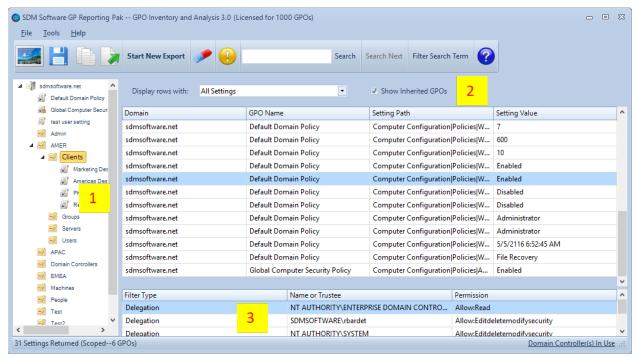


Figure 30 Viewing the results of a domain analysis

The left-hand AD tree allows you to navigate Domains, OUs or GPOs to see what settings are in effect at that level. Select an OU to see all settings for all of its inherited GPOs in the right-hand grid. Select a GPO to see only its settings. Un-check the "Show Inherited GPOs" checkbox (Callout 2) to show only GPOs and their settings which apply directly to that OU.

Select a row in the grid to see any security filters or WMI filters associated with the selected GPO in the **Filters** grid below **(Callout 3)**. It includes three columns:

- **Filter Type**: Either a security filter (named "**Delegation**") which indicates a security group, user or machine account; Or, "**WMI Filter**."
- Name or Trustee: In the case of a WMI filter, this column shows the name of the filter. For a security filter, it will show the *Domain\samAccountName* of the user, group or computer.
- Permission: For a security filter, this field contains the permission that has been delegated to the Trustee.

As you move through the domain OU structure, you can use view filtering or search/filters just as with GPO analysis to filter or narrow the settings list. For example, you can select an OU to see all GPOs that apply to that container, then adjust the filter dropdown to see which settings are conflicting or duplicated at that OU level.

Because the Doman Analysis feature needs to export all GPOs in the chosen domain, this process can take minutes in domains with hundreds of GPOs. It's also important to know the GPO limit of your license, if any. All GPOs in a given domain are exported to perform the analysis, so if you have licensed the Reporting Pak for a subset of GPOs within your domain environment, performing a domain analysis will exceed your license count.

Reporting on the Output

With GPO and Domain Analysis, you can generate reports for printing or output to different formats such as Excel, PDF and Word. To generate a report, perform the GPO or Domain analysis, then select

Tools, Generate Report from the product menu, or click the () icon from the toolbar. the title of the report will reflect any filter view you have selected. For example, if you filtered the grid based on "Not Conflicting Settings" the report title and data will reflect that, as shown in Figure 31.

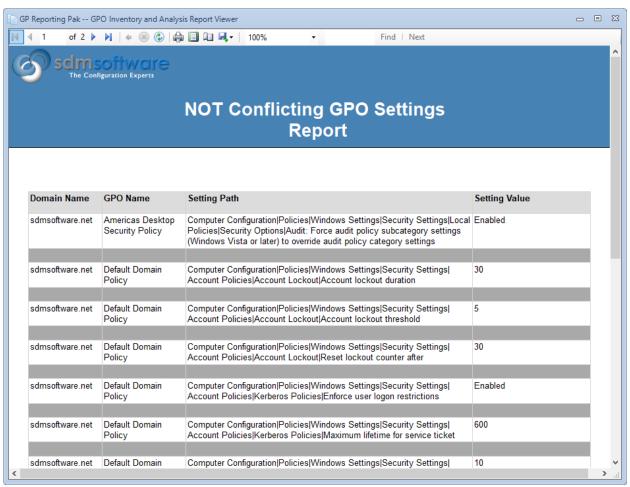


Figure 31 Viewing an Analysis report

You can either print the contents or save it to Excel, PDF or Word, using the save icon on the report toolbar.

Clearing the Results

If you need to clear the results grid for any reason, either select Tools, Clear Results from the product

menu, or click the () icon from the toolbar. This will remove all currently exported settings from the display.

Loading Reporting Pak Snapshots

Previously saved Reporting Pak Snapshots can be loaded into the GPO Analysis interface for review. You can use the filter views (e.g. Conflicting and Duplicate settings) just like a GPO analysis, perform searches, and generate reports. In order to access the Snapshot Manager, select **File, Snapshot**

Manager from the product menu or select the () icon from the product toolbar. When you launch the Snapshot Manager, if you had previously selected a snapshot path, it will show all current snapshots in that path, as shown in Figure 32.

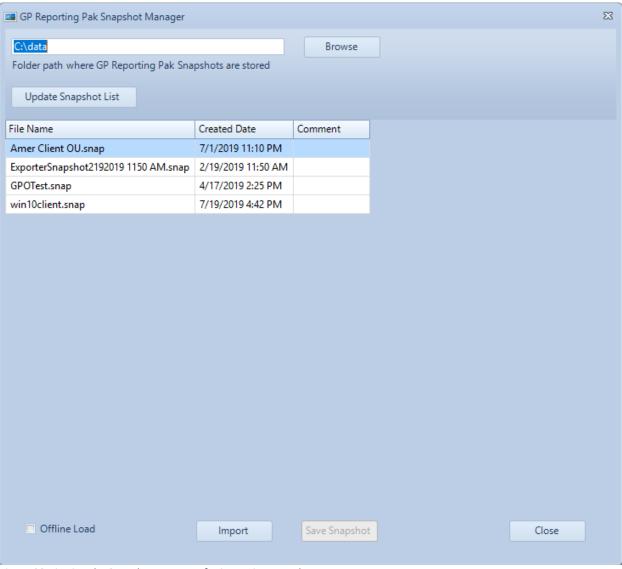


Figure 32 Viewing the Snapshot Manager for importing snapshots

You can click on a column header in the list to sort by that column. To select a snapshot to load, highlight that row with the mouse or keyboard and click the **Import** button to load it into the standard grid.

NOTE: You have the option of performing an "Offline Load" of a snapshot file, by selecting the Offline Load checkbox prior to clicking the **Import** button. Use this feature when loading snapshots from an AD forest/domain that you do not have a direct network connection to from the tool. If snapshots are loaded without this option checked, they make calls to the underlying domain to validate the data. Since this cannot happen for a disconnected domain, using the "Offline Load" feature will allow these disconnected snapshots to be loaded without error.

Viewing the Error Log

The error log displays any issues that are encountered when parsing Group Policy settings. If errors are

detected, the error log icon on the toolbar () will be highlighted. Click the icon to see error details. You can copy/paste the contents of this log to send to SDM Software Support, if required. You can also access the error log from the menu under **Tools, View Errors**.

Schedule Reports

The **Schedule Reports** tab allows you to schedule DSP reports for email delivery on a periodic basis. Select the tab to see the screen in Figure 33. (The Schedule Reports tab is not enabled for Demo or Timed licenses.)

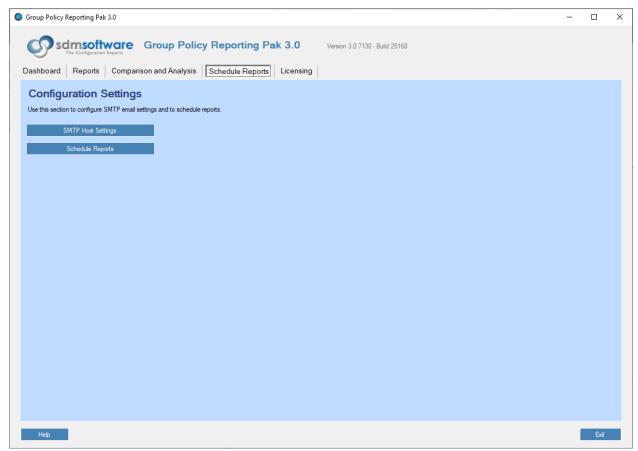


Figure 33 Viewing the Schedule Reports tab

Configure SMTP Settings

When configuring report scheduling, first configure the SMTP settings that will be used to email the reports.

NOTE: The Schedule Reports feature uses the Windows Task Scheduler service to create scheduled reports. Any user wanting to create scheduled reports must have permissions on the machine where the Reporting Pak is installed, to create scheduled tasks in Windows.

Click the SMTP Host Settings button on the screen in Figure 33 to see the options in Figure 34 below.

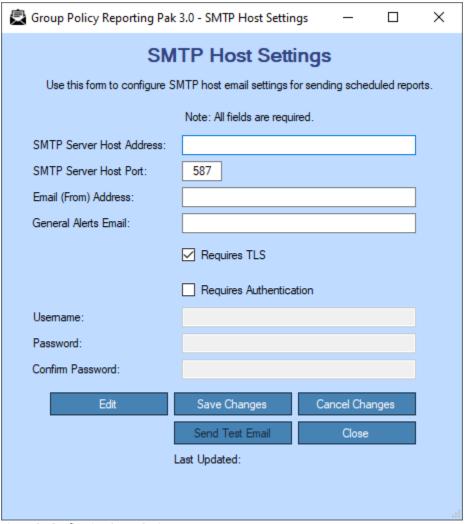


Figure 34 Configuring SMTP Options

- SMTP Server Host Address: The DNS name or IP address of your SMTP host
- SMTP Server Host Port: The TCP port used by your SMTP server to listen for SMTP traffic
- **Email (From Address)**: This is the email address that will appear in the From: field on mail messages containing GP Reporting Pak reports
- General Alerts Email: Used to receive a test email to confirm that SMTP settings are working
- Requires TLS: Check this box if your SMTP server uses TLS for encrypted communications

- **Requires Authentication**: Check this box if your SMTP server requires that you first authenticate to it prior to sending emails
- **Username & Password**: These fields will be available to fill in for SMTP authentication, if you check the **Requires Authentication** check box

Click the **Save Changes** button to ensure the changes are saved and click Send Test Email. If the settings were configured correctly, the "General Alerts Email" address will receive a test email. If not, you will see an error message in red at the bottom of the dialog, explaining what the error is. If you receive an error or need to change the information, click the **Edit** button. Click the **Cancel Changes** button if you wish to abandon the changes that you've made and go back to the original saved settings. Click the **Close** button to exit out of this dialog.

Schedule Reports

A single schedule can contain multiple GP reports. In other words, when a given schedule runs, if you've defined 5 reports within it, they will be sent in a single email, as 5 attachments, to any recipients specified. You can define multiple schedules, each with their own set of reports, recipients and times that they run. All Reporting Pak portal reports shown in the **Reports** tab are available to run under a schedule. (Group Policy Comparison and Group Policy Inventory & Analysis reports provide their own tools for generating reports within their applications.)

Once you've set up SMTP settings, click the **Schedule Reports** button on the Schedule Reports tab to configure your report schedules. You will see the screen in Figure 35 below.

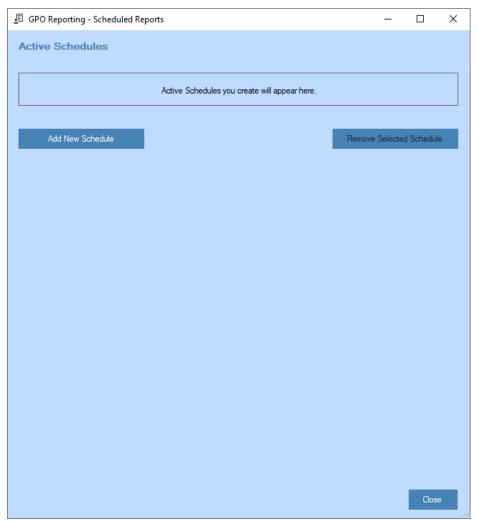


Figure 35 Creating scheduled reports

Click the **Add New Schedule** button, which will display the screen in Figure 36.

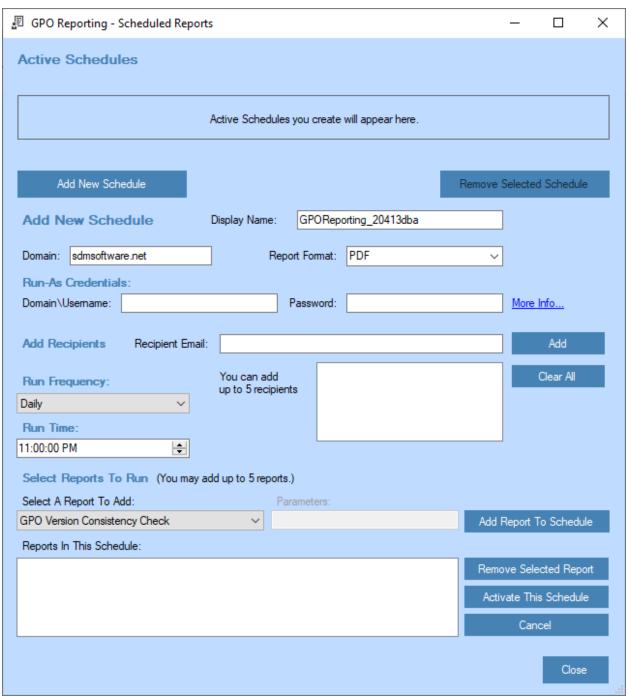


Figure 36 Defining a new schedule

- **Display Name**: The friendly name of a schedule. You can replace the system generated default name with any name that helps to identify the schedule (e.g. "Best Practices Reports for IT Management").
- Domain: The DNS domain name of the domain against which you wish to run the report(s).
- **Report Format**: Choose the format that the report(s) in this schedule will be sent in. The options are PDF, HTML or CSV.

- **Domain\UserName**: Reports need to run under a valid domain user context—one that has read access to the GPOs or AD containers being reported on. Enter a username in the form of <domainname\username> in this field (e.g. mycompany\robertsmith).
- Password: Enter the password for the user account you entered in the previous field.
- **Recipient Email**: Add email addresses for users or distribution lists that should receive the report(s) in this schedule. You can add up to **5** recipient addresses to a schedule.
- **Run Frequency**: Specify the frequency of the schedule running -- daily or weekly on a specified day.
- **Run Time**: Enter the time, local to where GP Reporting Pak is installed, at which you want the report(s) to be run.
- Select Reports to Run: Select which report(s) you wish to include in a given schedule. You can specify up to 5 reports in a schedule, from the dropdown list that shows all reports available. Some reports require additional parameters, such as a user or computer name, or an OU DN. The "More info" link will appear above the parameters dialog to provide more help on any parameters that are required. After you select a report from the dropdown, click the Add Report To Schedule button to add the report to the schedule list.

Click the **Activate This Schedule** button to create the schedule. When a new schedule is successfully added, you will see it appear in the schedule reports list as shown in Figure 37.

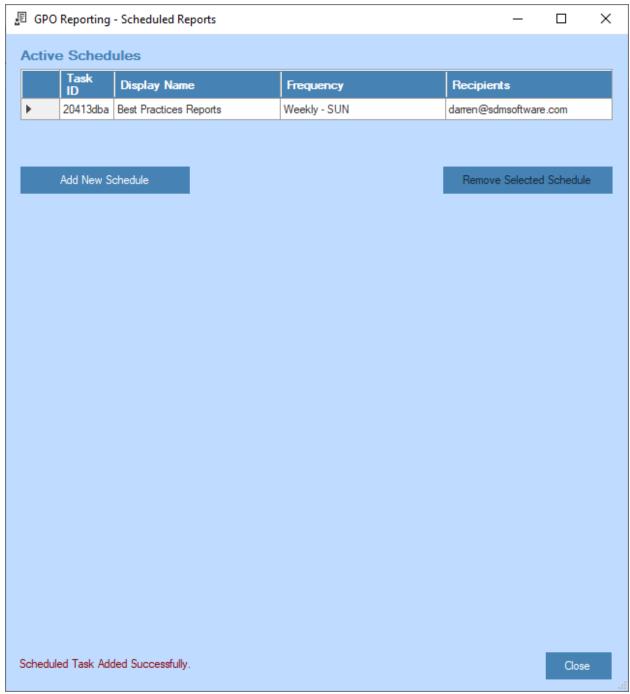


Figure 37 Viewing a new report schedule

You can delete a schedule by clicking the **Remove Selected Schedule** button while the schedule is highlighted.

For reference, the Task ID is the unique ID of the underlying Windows Scheduled Task that is created to run the reports. The Scheduled Task will have the report name of GPOReporting_<Task ID>, as shown in Figure 38 below:

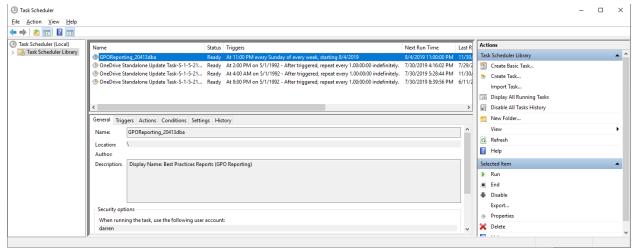


Figure 38 Viewing the underlying Windows scheduled task for a report schedule

NOTE: Schedules that were created by the Reporting Pak should be deleted from within the product, rather than from within the Windows Scheduled Tasks interface, as doing so would orphan the tasks in the Portal product. Please contact SDM Software Support if this happens.

Edit a schedule by highlighting the schedule in the schedule list shown in Figure 37. This will bring up the details of that schedule and allow you to edit them. Click the **Update Schedule** button to save your changes.

PowerShell Support

Both Group Policy Comparison and Group Policy Inventory & Analysis provide PowerShell modules to allow most operations from the command-line. When GP Reporting Pak is installed, two PowerShell modules are installed into the default PowerShell module path of

%programfiles%\WindowsPowerShell\Modules. The modules are named **SDM-GPOCompare** and **SDM-GPOExporter**. Each module contains a single cmdlet to perform functions related to that module. For Group Policy Comparison, the cmdlet is called **Compare-SDMGPO** and for Group Policy Inventory & Analysis, the cmdlet is called **Export-SDMGPSetting**. Both cmdlets provide PowerShell help by using **gethelp** and the cmdlet name. You can find full help for each by opening PowerShell on a system where the Reporting Pak is installed and typing **get-help <cmdlet name> -full**. This will return all documentation related to the cmdlet as well as examples of their use.

Troubleshooting

The GP Reporting Pak comes with logging that can be used to support a troubleshooting event. The logging is disabled by default but can be enabled via the registry within the following key:

HKEY_LOCAL_MACHINE\SOFTWARE\GP\GPRP

You will find a value called "Logging" here. Set the value to 1 to enable logging. You'll need to restart the GP Reporting Pak to have the logging take effect. Once the logging is enabled, all events will be logged to %appdata%\SDM Software\GPReporting, contained in two log files called **GPOReporting.log** and **GPOReportingAPI.log**. These log files can be sent to SDM Software Support when required to provide additional troubleshooting help.