
Aquaforest CheckPoint Reference Guide



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1 Product Overview

Aquaforest CheckPoint is a SharePoint Governance tool that is designed to monitor and report various details from an organization's SharePoint farm. It supports both On Premise and Cloud SharePoint installations. It connects to SharePoint remotely, as a result you do not have to install it on the same machine as your SharePoint server and one installation can serve multiple SharePoint farms.

Aquaforest CheckPoint revolves around **Queries**, it allows users create queries that can be used to monitor the state of the SharePoint farm. This tool helps users:

Gain Insight – with SP object search engine to locate items such as newly created objects or those not complying with governance standards

Identify Issues – such as security problems, obsolete content, non-searchable PDFs, excessively large files or many other issues.

Take Action – Direct links to SharePoint administration and automated alerts and reports enable rapid response to issues.

On Premises and In the Cloud – Support for SharePoint 2010, 2013, 2016 and Office 365.

2 Installation and Licensing

2.1 Installation

The product is installed via Aquaforest_CheckPoint.msi install package that can be downloaded from Aquaforest's download page: http://www.aquaforest.com/en/searchable_pdf_download.asp

2.2 Requirements

Supported Operating Systems	<ul style="list-style-type: none">• Windows 7 (x64)• Windows 8 (x64)• Windows 10(x64)• Windows Server 2008 R2 (x64)• Windows Server 2012 R2 (x64)• Windows Server 2016
Supported Document Stores	<ul style="list-style-type: none">• SharePoint 2010• SharePoint 2013• SharePoint 2016• SharePoint Online (Office 365)
Disk Space	200 MB
Memory	Minimum 4GB (recommended 8GB)
.NET Framework	<u>4.5.2</u>

2.3 Folder Structure

- **Bin:** The bin folder contains all the libraries and executables used to make Aquaforest CheckPoint work.
- **Config:** This folder contains the config file where the Aquaforest CheckPoint settings are stored.
- **Connections:** This folder is used to store the connection details for sites and site collections.
- **License:** This folder is used to store license information.
- **Query:** This folder is used to store the definition files for reports, any report that is saved will be stored in this folder.
- **Reports:** This folder is used to store scheduled reports as csv and pdf files, it also contains logs and error produced during the generation of reports.
- **Temp:** This folder is used to download pdf files from SharePoint when Aquaforest CheckPoint is trying to find searchable pdf files.

3 CheckPoint Objects

3.1 Connections

This represents Sites or Site Collections in SharePoint.

3.2 Reports

CheckPoint is built around the idea of users creating queries on certain SharePoint attribute and objects they are interested in. Each report contains the following:

- **Report Name:** This the name used to identify the query, it will show up on alerts sent to the administrator.
- **SharePoint Object:** These are the SharePoint objects that you can run queries on, in check point you can run queries on Sites (Site Collections), Lists (Document Libraries), Documents, List Items and Users.
- **Conditions:** These are like the Where clauses in a SQL statement, it allows specifying values for certain attribute of the SharePoint object they are interested in.
- **Columns:** These are the SharePoint attributes that will show up on the report or result returned from the query.
- **Connections:** This is the site(s) Library (ies) or List(s) a user wishes to run the query on.

3.3 Scheduler

In most instances, the administrator would like to continuously monitor the SharePoint farm. CheckPoint allows users to run queries continuously using the scheduler, the result of these queries will be saved as CSV or PDF files. The different options are:

- **Manually:** This means that the report has to be run manually by clicking on the "Run Report" button on the Reports tab.
- **Once a Day:** This allows the report to be scheduled to run at a specified time each day.
- **Run Once:** This allows the report to be scheduled to run only once at a specified time.
- **Continuous:** This allows the report to be scheduled to run periodically between a start time and end time each day. The periods may be seconds, minutes or hours. For example, a report may be specified to run every 30 seconds between 9:00 and 17:00.

3.4 Alerts

Scheduled reports can be set to send Email Alerts to the user after each run. You will need to provide the Email address, Subject and Body of the Email to be sent. Below are the different alert settings:

- **Show Alert On Dashboard:** Setting this to true allow new alerts to be shown on the dashboard.
- **Send Email On Error:** If set to true, an Email alert will be sent to the user if there is any error when the query is being executed.
- **Send Email if Results Are More Than:** This allows the user to provide an integer, after execution of a query, if the result has more rows that the integer specified then an email will be sent to the user.
- **Attach Results To Alert:** If set to true, the CSV result will be attached to Email sent to user.

4 Aquaforest CheckPoint User Interface

4.1 Dashboard

This tab give us an overview of what is going within Aquaforest CheckPoint. It shows the top six Connections, Reports and Alerts.

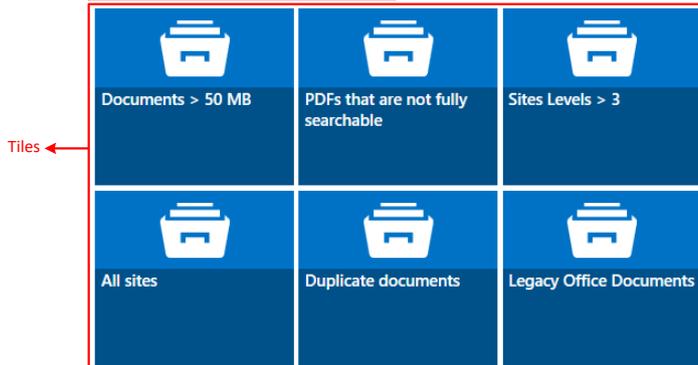
- Clicking on any of the headers will take you to a tab showing a full list of the items.
- Clicking on a file will open the particular object represented by the file.

Dashboard **Connections** Reports Alerts Settings Help

connections > (Displaying 2 of 2 items)

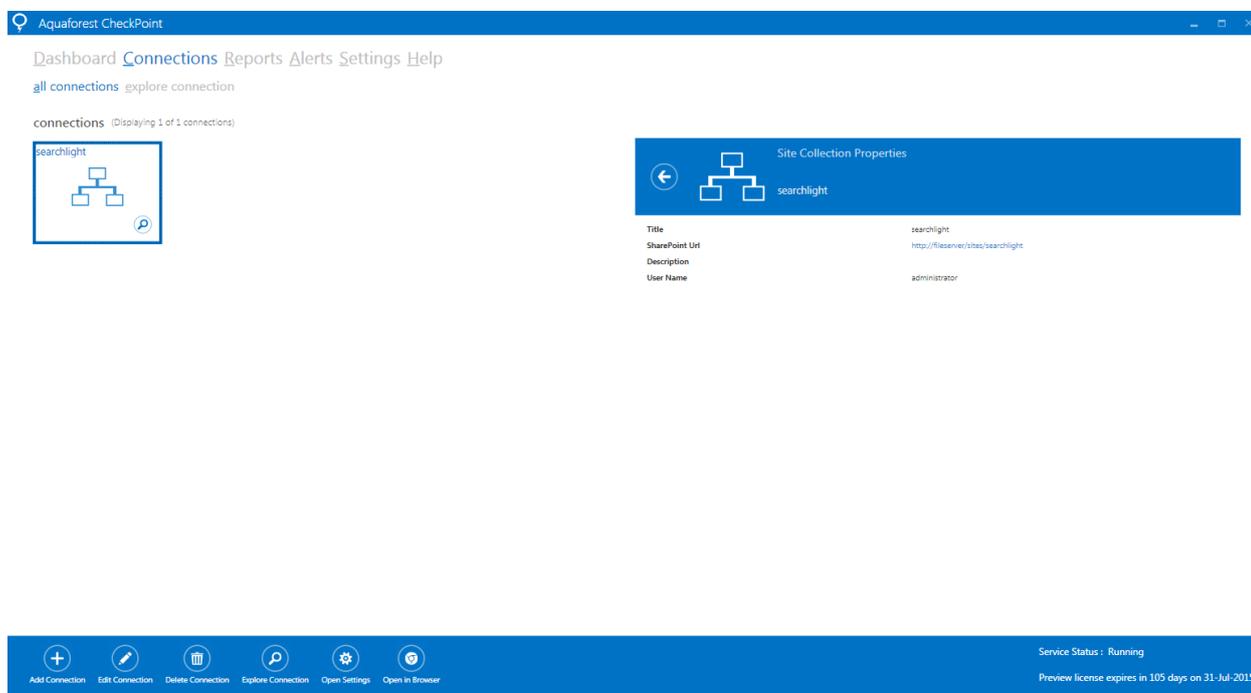


Header ← reports > (Displaying 6 of 13 items)



4.2 Connections Tab

This tab shows all the connections that have been added to CheckPoint.



If a connection is selected, more details about the connection will be shown on the right and all the greyed out controls (inactive controls at the bottom) will become active.

4.2.1 Adding a New Connection

To add a new connection click the "Add Connection" button at the bottom and a dialog box will come up. Enter the site collection or site URL, Username and password and click on the "CONNECT" button. In case of ADFS connections, the hostname of the ADFS server and the ADFS relying party identifier is also required.

SharePoint site collection or site URL

Connection Type

SharePoint On-Premises

Username

Password

Use ADFS Authentication:

Off

Hostname of the ADFS Server

ADFS Relying Party Identifier

CONNECT CANCEL

4.2.1.1 SharePoint URL format

Below is an example of how to set the SharePoint URL format when setting up a document library in CheckPoint.

- SharePoint 2010

Actual URL:

`http(s)://SharePoint2010/site/myLibrary/myForms/AllItems.aspx`

Supported URL format in CheckPoint:

`http(s)://SharePoint2010/site/myLibrary`

- SharePoint 2013

Actual URL:

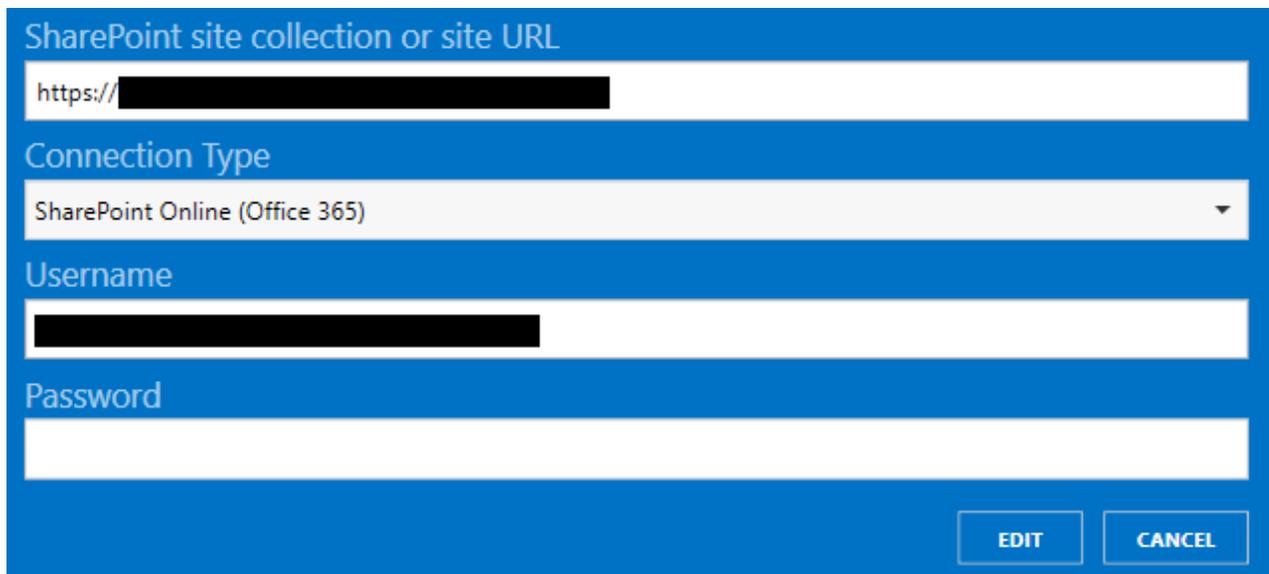
`http(s)://SharePoint2013/site/Library/_layouts/15/start.aspx#/mylibrary/Forms/AllItems.aspx`

Supported URL format in CheckPoint:

`http(s)://SharePoint2013/site/Library/mylibrary`

4.2.2 Editing a connection

A user might want to edit a connection after adding it. This could be because the Username or Password of the connection has changed. To edit a connection, select the connection then click the "Edit Connection" button. This will bring up a dialog box similar to the one used to add a new connection, the only difference is that the URL and Username is populated. After making the required changes, click on "EDIT" to save them.



SharePoint site collection or site URL

https://

Connection Type

SharePoint Online (Office 365)

Username

Password

EDIT CANCEL

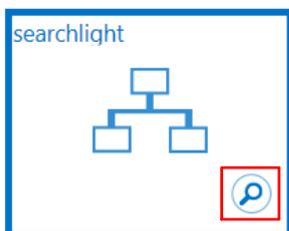
4.2.3 Deleting a Connection

To delete a connection, select the connection then click the "Delete Connection" button.

4.2.4 Exploring a Connection

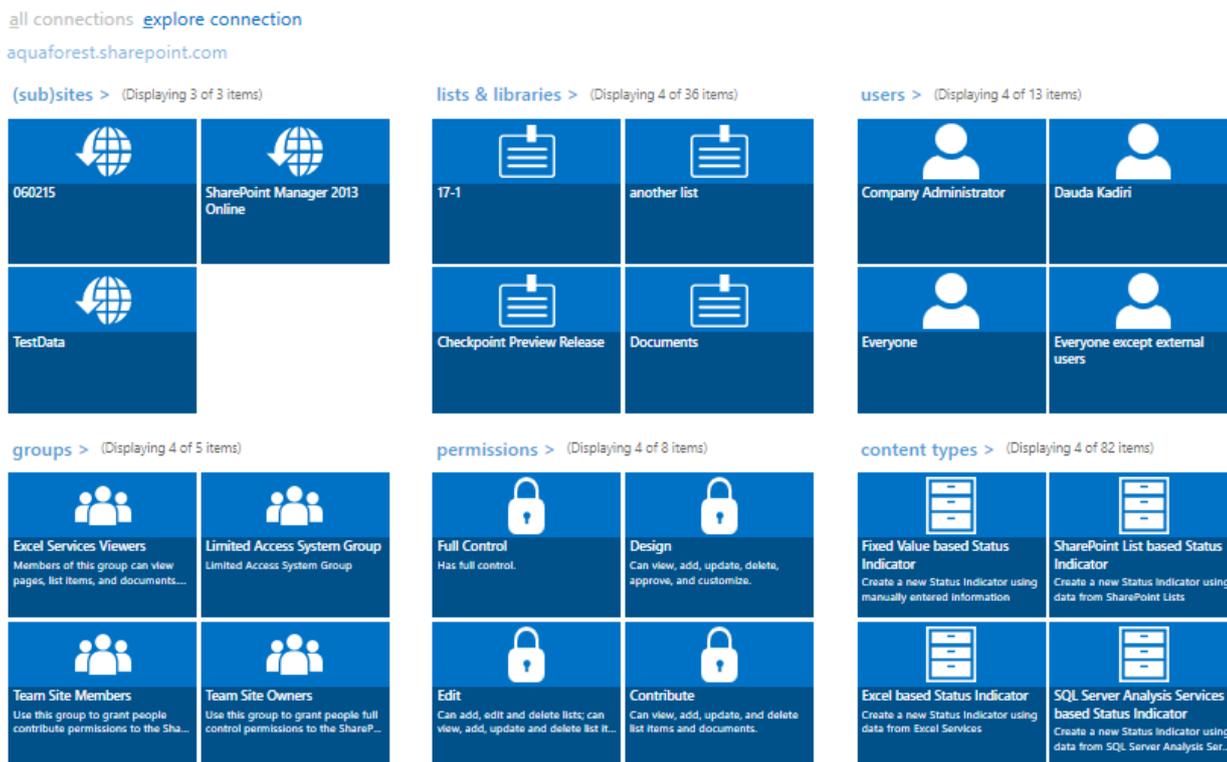
CheckPoint allows a user to drill down a SharePoint farm and see more details about it without having to run queries on the farm. To explore a connection, do one of the following

- Double-click on the connection file or
- Select the connection and click the button on the bottom right hand corner in the connection file



- Select the connection and click the "Explore Connection" button at the bottom of the screen.

This will show the explorer similar to the one below:

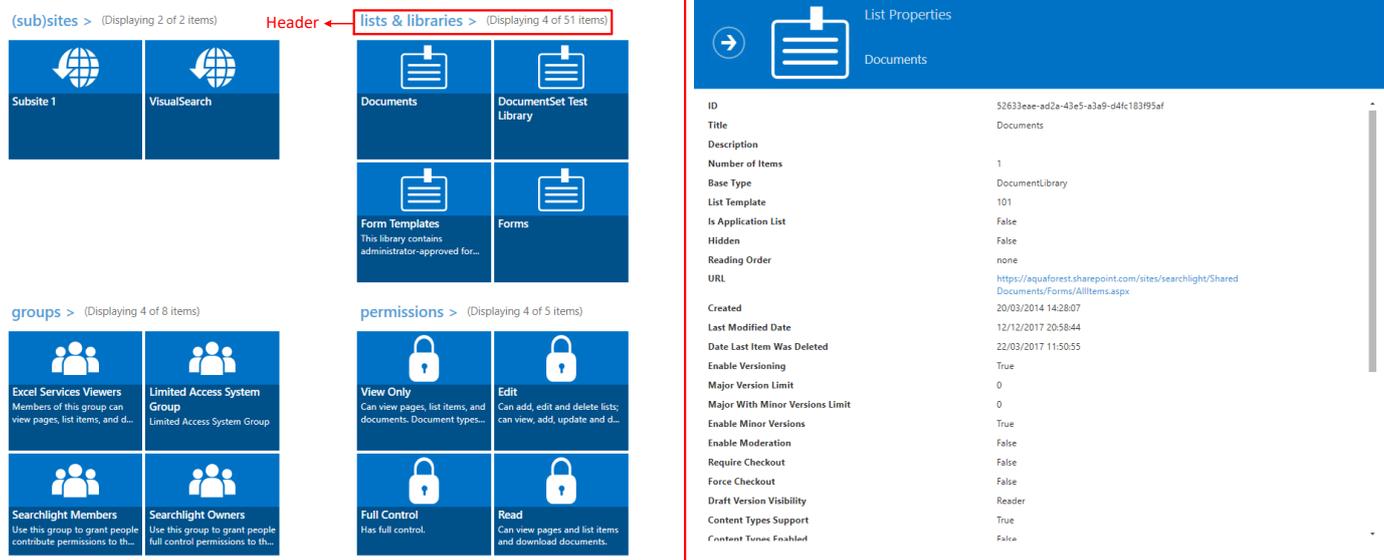


To view more details about the objects which are represented by the files, click on the file interested in.

Dashboard [Connections](#) [Reports](#) [Alerts](#) [Settings](#) [Help](#)

all connections [explore connection](#)

searchlight



The window above shows the first six items of each object type. To see all the items, click on the header shown above.

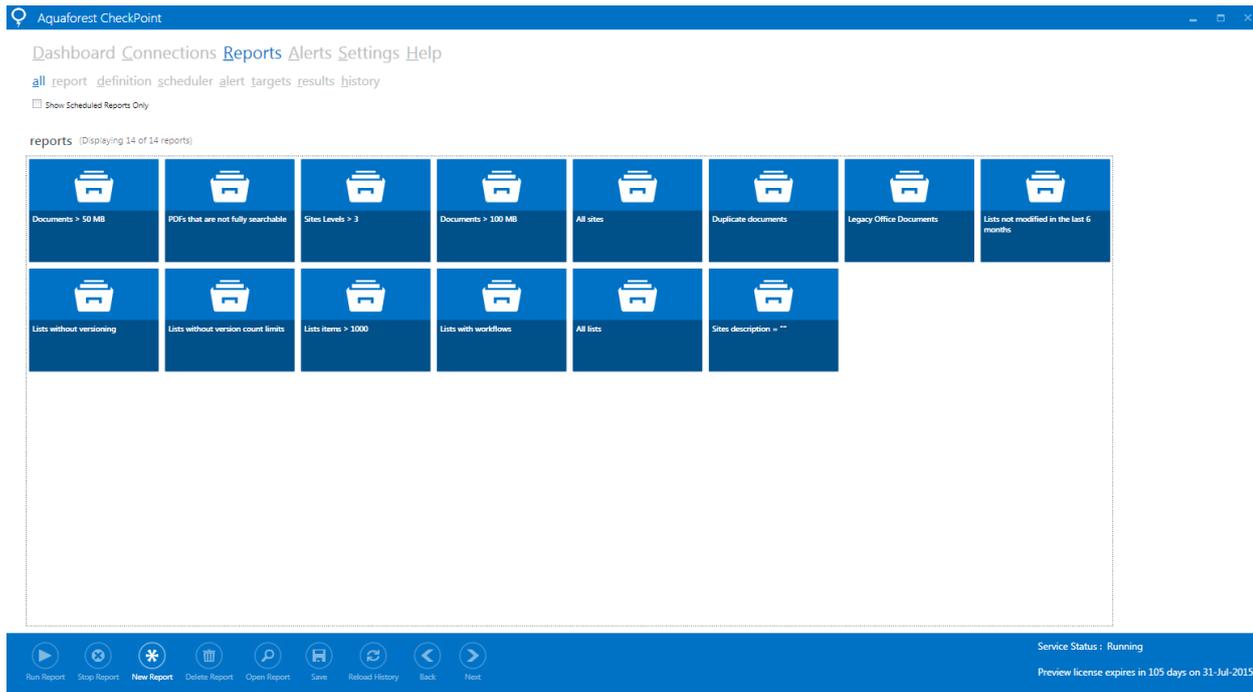
4.2.5 Open site in web browser.

CheckPoint allows users to open SharePoint sites in the default web browser. There are two buttons that can help do that.

- Clicking the "Open in Browser" will open the home page of the SharePoint site selected.
- Clicking the "Open Settings" will open the settings page of the SharePoint site selected.

4.3 Reports Tab

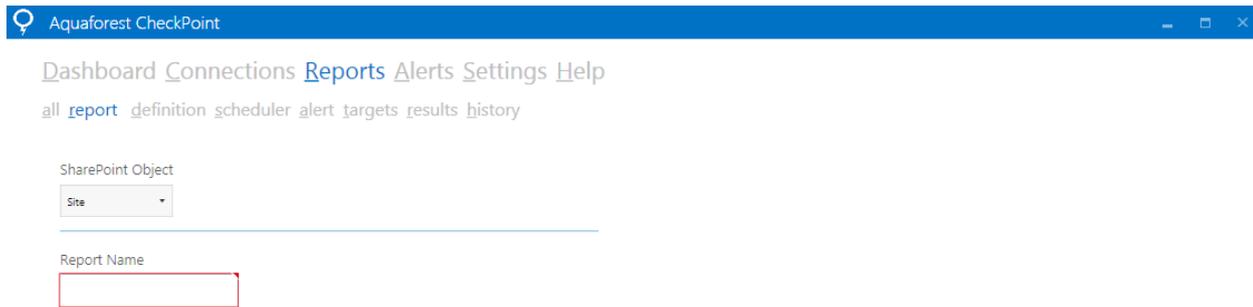
This tab shows all the queries that have been saved by the user and it also shows a set predefined queries shipped out with CheckPoint to help the user get started.



4.3.1 Creating a report

To create a new report, click on the "Reports" tab, then click on the "New Report" button at the bottom of the screen.

4.3.1.1 Report



In this page, select the SharePoint object to query. The available options are:

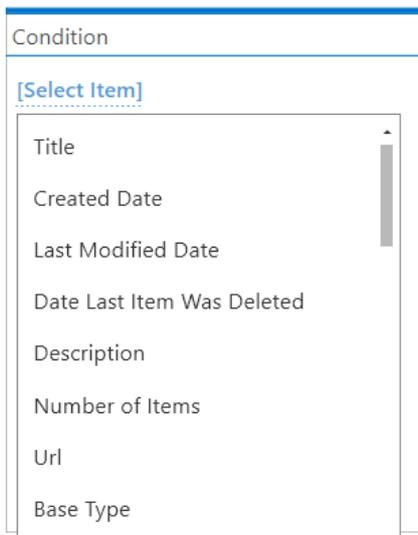
- Sites (Site Collections)
- Lists (Document Libraries)
- Documents
- List Items
- Users

Next, enter a name for the report and click the “Next” button to go to the “Definition” tab.

4.3.1.2 Definition



1. Click the "Add New Condition" button at the bottom of the condition section to add an empty condition.
2. Click on "Select Item" to get a list of attributes to run the query/report on



3. Click the "Delete" button will delete the condition
4. Select the columns to show in the results in the "Columns" section

Click next to go to the "targets" page.

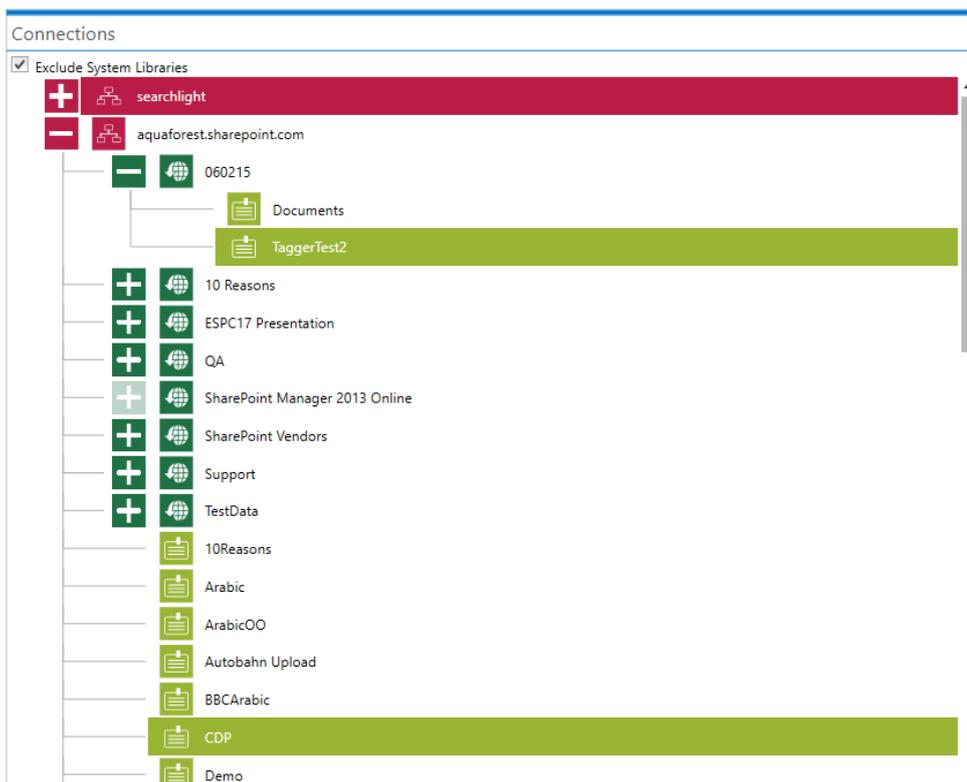
4.3.1.3 Targets

The "targets" tab enable you to select the site collections, sites, document libraries and lists to run the report on.

Dashboard [Connections](#) [Reports](#) [Alerts](#) [Settings](#) [Help](#)

[all report](#) [definition](#) [targets](#) [results](#) [scheduler](#) [alert history](#)

Duplicate documents ▾



4.3.1.4 Results

After selecting the targets, clicking next will run the report and display the results in tabular format as shown below.

Name	File Extension	URI	File Size (bytes)	Duplicate (hash)
fff one - Copy - Copy.stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff one - Copy - Copy (2).stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
Open containing SharePoint list or library	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff one - Copy (2) - Copy.stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff one - Copy (2).stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff one - Copy (3).stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff one - Copy.stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff one.stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff two - Copy - Copy - Copy.stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff two - Copy (2).stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff two - Copy (2).stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff two - Copy (3).stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff two - Copy (2) - Copy.stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff two - Copy (2).stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff two - Copy (3).stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff two - Copy.stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3
fff two.stf	stf	http://fileserver/sites/searchlight/Duplicate%20test%20one.tff%20on	234.122	4CE608C66282843A06945864C193A3E3

Below is a list of operations that a user can perform in the results tab.

- Clicking the folder icon or double click anywhere in a row will open that row in the default web browser.
- The “Export to CSV” button will generate a csv file containing the results displayed in the data grid.
- The “Export to PDF” button will generate a PDF file containing the results displayed in the data grid.

4.3.1.5 Scheduler

If you want to run the report periodically, click “Next” from the “Results” tab to go to the Scheduler tab

Dashboard Connections Reports Alerts Settings Help

all report definition targets results scheduler alert history

Manual

Once per day

At: 11 : 56

Continuous

Every: 1 Hours

Between 11 : 56 And 12 : 56

Run once

On: 1/2/2018

At: 11 : 56

Results Retention Period days: []

Log File Retention Period (days): []

The scheduler allows Aquaforest CheckPoint to automate the monitoring and running of reports. There are three types of schedule types namely:

- **Manual:** If this option is selected, Aquaforest CheckPoint will generate the reports whenever “Run Report” button is clicked manually. Note that Aquaforest CheckPoint generate these reports only once per click.
- **Once per day:** This setting allows you to select any time during the day that Aquaforest CheckPoint will generate Reports.
- **Continuous:** This allows reports to be generated periodically between a start time and end time each day. The periods may be minutes or hours. For example, a job may be specified to run every hour between 9:00 and 17:00.
- **Run Once:** This setting allows you to schedule the report to be generated once on a given date and time.
- **Results Retention Period:** This is an integer that represents the number of days the reports should be kept, all reports older than this value will be deleted automatically.
- **Log File Retention Period:** This is an integer that represents the number of days the log files should be kept, all reports older than this value will be deleted automatically.

4.3.1.6 Alerts

Aquaforest CheckPoint

Dashboard Connections Reports Alerts Settings Help

all report definition scheduler alert targets results history

Enable Alerts
No

Send Email If Results Are More Than

Show Alert On Dashboard
No

Attach The Log Files To Alerts
No

Send Email On Error
No

Attach The Reports To Alerts
No

From Email Address

To Email Address

Subject
The Report Named %reportname% is ready.

Email Body
The Report Named %reportname% has completed with %numberofrows% Rows.

TEST E-MAIL

The “Alert” tab provide settings allows the User to specify email addresses and messages to be sent after a report is successfully generated or fails during generation. It also allows the user to specify the criteria to be met before alerts are sent or displayed.

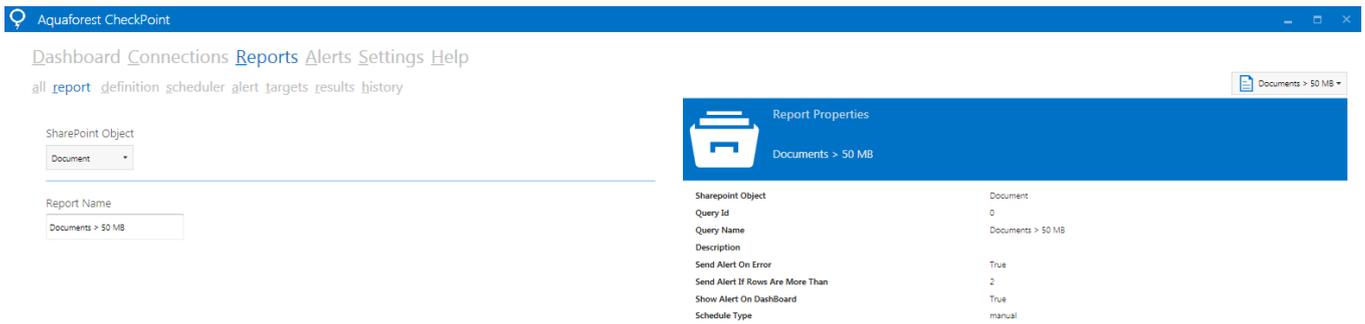
- **From Email Address:** This textbox takes the Email Address of the sender.
- **To Email Address:** This textbox takes the Email Address of the receiver.
- **Subject:** This textbox takes the subject of the email to be sent.
- **Email Body:** This textbox takes the main message to be sent.
- **Show Alert On Dashboard:** If this toggle button is checked, latest alerts sent out will appear on the dashboard.
- **Attach Log Files To Alerts:** Checking this toggle button while attach log files of reports being generated to the Email alerts.

- **Send Email On Error:** Checking this option will send an Email to the user when a report fails to be generated, this will also attach the log file to the Email so that the user can know the reason for the failure.
- **Send Email If Results are More Than:** This textbox takes an integer as the input, whenever the number of rows contained in the results is more than the integer specified, an alert will be sent.

N.B: Before the alerts are sent out properly, you will have to put in a valid SMTP configuration in the “Settings” tab.

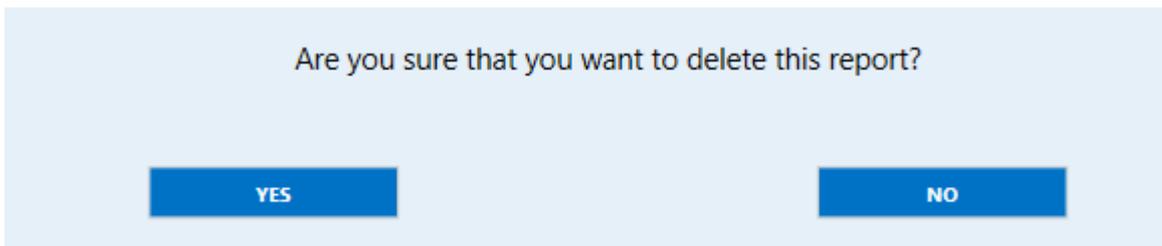
4.3.2 Editing a report

To edit a report, select the report to be edited in the “Reports” tab and click on the “Open Report” button. Make the changes and click the save button to update it.



4.3.3 Deleting a Report

To edit a report, select the report to be edited in the “Reports” tab and click on the “Delete Report” button. A dialog box will pop up to confirm deletion. Click “YES” to delete the report.



4.3.4 Report History

This tab is mainly used with reports that are executed by the scheduler. It gives an overview of the number of times a report was executed, the jobs that failed, the number of rows returned if the job was successful and also the results returned by each execution.

Scheduled Report History									
Open Files			Run Date	Report Name	SharePoint Object	Number Of Rows	Alerts Sent	Status	
CSV	LOG	PDF	3/26/2015 4:31:23 PM	Documents > 5KB	Document	14685	Sent	Successful	
CSV	LOG	PDF	3/26/2015 4:30:25 PM	Documents > 5KB	Document	14685	Sent	Successful	
CSV	LOG	PDF	3/26/2015 4:29:24 PM	Documents > 5KB	Document	14685	Sent	Successful	
CSV	LOG	PDF	3/26/2015 4:28:24 PM	Documents > 5KB	Document	14685	Sent	Successful	
CSV	LOG	PDF	3/26/2015 4:27:29 PM	Documents > 5KB	Document	14685	Sent	Successful	

Total number of runs = 5 Show the last Runs

Scheduled Report Results		
Name	File Size (bytes)	Url
chk_images009324.tif	5002	http://fileserver/sites/searchlight/Test%20Set/221112/split/chk_images009324.tif
chk_images003018.tif	5003	http://fileserver/sites/searchlight/Test%20Set/221112/split/chk_images003018.tif
chk_images009370.tif	5003	http://fileserver/sites/searchlight/Test%20Set/221112/split/chk_images009370.tif
chk_images001610.tif	5004	http://fileserver/sites/searchlight/Test%20Set/221112/split/chk_images001610.tif
chk_images001212.tif	5005	http://fileserver/sites/searchlight/Test%20Set/221112/split/chk_images001212.tif
chk_images002788.tif	5005	http://fileserver/sites/searchlight/Test%20Set/221112/split/chk_images002788.tif
chk_images002546.tif	5008	http://fileserver/sites/searchlight/Test%20Set/221112/split/chk_images002546.tif
chk_images006370.tif	5008	http://fileserver/sites/searchlight/Test%20Set/221112/split/chk_images006370.tif

Limit 1

The first table shows the details of each report executed in the past, selecting any row in the first table will populated the "Schedule Report Results".

4.4 Alerts

The "Alerts" tab shows you all the alerts the recent alerts that have been sent by Aquaforest CheckPoint. It is a super set of the alerts shown in the "Dashboard". It allows performing the following actions.

- **View Alert History:** Clicking any alert in this tab will populate the alert history control found on the left side of the "Alert" tab. This control looks exactly like the "Report History", the only difference is that it contains only report that have alerts sent to the user.
- **Edit Alert:** Selecting an alert and clicking on the "Edit Alert" Button will take you to the "Alerts" tab of the report section, this will allow you update the alert settings.
- **Dismiss Alert:** Selecting an alert and clicking on this button will remove the alert notification for that report from the Aquaforest CheckPoint UI.

Aquaforest CheckPoint

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alerts (Displaying 1 of 1 alerts)

Documents > 50 MB



Open Files	Run Date	Report Name	SharePoint Object	Number Of Rows	Alerts Sent	Status
CSV LOG PDF	4/15/2015 10:45:51 AM	Documents > 50 MB	Document	3	Sent	Successful
CSV LOG PDF	4/15/2015 10:44:51 AM	Documents > 50 MB	Document	3	Sent	Successful

Total number of runs = 2 Show the last 5 Runs

Scheduled Report Results

No Results Found.

Limit 50

Service Status: Running
 Preview license expires in 105 days on 31-Jul-2015.

Edit Alert Dismiss Alert Reload

4.5 Settings

The settings tab is used to carry out application wide settings, there are a number of different sections which are described below.

4.5.1 Email

Here you will need to configure details for your SMTP server including a username and password which will enable Aquaforest CheckPoint to send email alerts for a report.

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license theme [e-mail](#) duplicate columns advanced

SMTP Server

SMTP Port

Username

Password

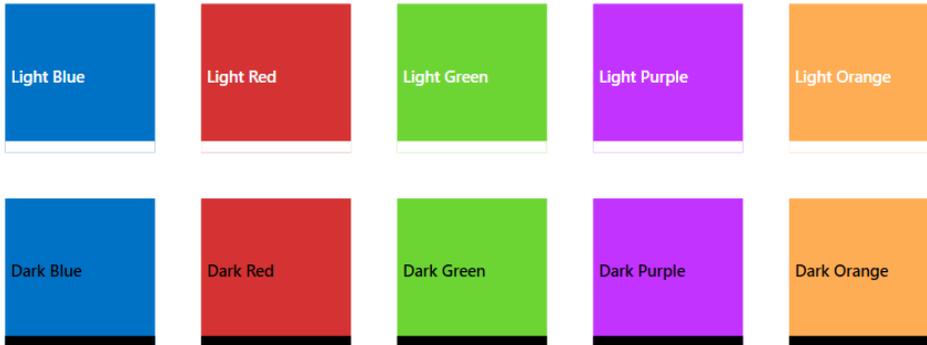
Re-enter Password

4.5.2 Theme

Aquaforest checkpoint comes with ten different themes, to change the theme just click on the desired file.

Dashboard Connections Reports Alerts **Settings** Help

license **theme** e-mail duplicate columns advanced



4.5.3 License

To update the license key enter the license key provided in the License Key text box and click on the “Update License” at the bottom of the screen.

Dashboard Connections Reports Alerts **Settings** Help

license **theme** e-mail duplicate columns advanced

License Type: Perpetual
Start Date: n/a
Expiry: n/a
Results Limit: Unlimited
Computer Bound: No
Computer Identifier:
License Key:



4.5.4 Duplicate

Aquaforest CheckPoint provides functionality for detecting duplicate data. Due to the way SharePoint manages certain documents types (primarily office documents) we need to use a threshold when determining duplicate data. The default threshold is set to 1000 bytes. Contact support@aquaforest.com for more information about the settings for finding duplicate documents. You can also refer to this [blog](#) for more information on how the duplicate finder works.

Dashboard Connections Reports Alerts **Settings** Help

license theme e-mail **duplicate** columns advanced

Size Threshold (bytes)

1000

Additional File Types to Unzip

Folders to Exclude

customXml,[trash],docProps,MsoDataStore

4.5.5 Columns

This tab controls the columns which are available for selection when viewing results for reports.

Dashboard Connections Reports Alerts **Settings** Help

license theme e-mail duplicate **columns** advanced

<p>Default Site Columns</p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> Title<input type="checkbox"/> Created Date<input checked="" type="checkbox"/> Last Modified Date<input type="checkbox"/> Owners<input type="checkbox"/> Description<input type="checkbox"/> Language<input checked="" type="checkbox"/> Uri<input type="checkbox"/> Level<input type="checkbox"/> Depth<input type="checkbox"/> Number of Subsites (child)	<p>Default Document Columns</p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> Name<input checked="" type="checkbox"/> File Extension<input type="checkbox"/> File Size (bytes)<input type="checkbox"/> Created Date<input type="checkbox"/> Last Modified Date<input type="checkbox"/> Created By<input type="checkbox"/> Last Modified By<input type="checkbox"/> Version<input type="checkbox"/> PDF Searchability Status<input type="checkbox"/> Duplicates
<p>Default List Columns</p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> Title<input type="checkbox"/> Created Date<input checked="" type="checkbox"/> Last Modified Date<input type="checkbox"/> Date Last Item Was Deleted<input type="checkbox"/> Description<input type="checkbox"/> Number of Items<input checked="" type="checkbox"/> Uri<input type="checkbox"/> Base Type<input type="checkbox"/> List Template<input type="checkbox"/> Has Hidden Properties	<p>Default User Columns</p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> Name<input type="checkbox"/> Is Site Collection Administrator<input type="checkbox"/> Author<input checked="" type="checkbox"/> Email<input type="checkbox"/> Is Domain Group
<p>Default List Item Columns</p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> Title<input type="checkbox"/> Created Date<input type="checkbox"/> Last Modified Date<input type="checkbox"/> Created By<input type="checkbox"/> Last Modified By<input type="checkbox"/> Content Type<input checked="" type="checkbox"/> Uri	

4.5.6 Advanced

The Advanced tab includes the service status, the option to display the welcome screen at start-up and the option to use parallel queries.

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Download Retries

Download Retry Wait Time (ms)

PDF Text Operators

Service

On



Show Welcome Text

No



5 Acknowledgements

This product makes use of a number of Open Source components which are included in binary form. The appropriate acknowledgements and copyright notices are given below.

Name	Homepage
7zip	Homepage
Extended.Wpf.Toolkit	Homepage
IKVM.NET	Homepage Sourceforge
log4Net	Homepage
MahApps MahApps.Metro MahApps.Metro.IconPacks	Homepage GitHub GitHub
Newtonsoft.Json	Homepage
PDFBox	Homepage