

QA Checks Settings Configuration Tool

v4

This document is intended for system builders and administrators who maintain servers within various environments.

You do not need to know PowerShell to use these scripts but it will help in diagnosing any issues that may occur. Please make sure you read this document fully as well as the information posted in the Wiki location of the GitHub repository.

This document refers to version 4 of the scripts. It can be used for other versions however some of the screen shots and/or wording may be different.



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Overview

The QA Settings Configuration Tool (QASCT) is a tool that aids in the configuration of customer or environment specific settings for the QA scripts. This tool is written entirely in PowerShell.

It requires PowerShell version 4 or later to work, and should be located in the same folder as all the other files that have been downloaded from the GitHub page.

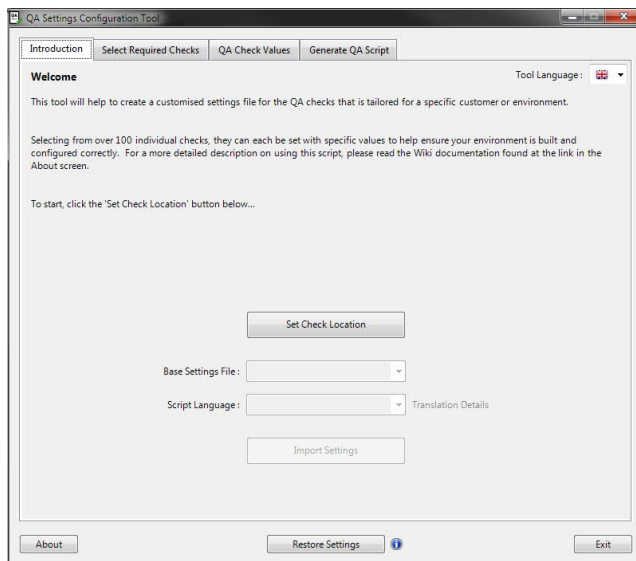
You should already be familiar with the general overview of the tool as described in the Quick Start Guide. If you have not read this document yet, please do so.

Opening the QASCT

From a standard PowerShell window, run the tool by typing `. \QA-Settings-Configuration-Tool.ps1`, alternatively right-click the file and choose Run with PowerShell if that option is available.

Page 1 - Introduction

After a few seconds the following window will appear:



Interface Language

The tools language can be changed from the drop-down list at the top-right of the window. Currently only English (United Kingdom) is available. If you do choose another language, the entire interface will change to use the new language. There is no need to reload the tool.

If you use a different language all the time and want the tool to start with your chosen language, change the command line to the following...

```
. \QA-Settings-Configuration-Tool.ps1 -Language xx-xx
```

In this case, **xx-xx** is the name of a language file, as shown in the i18n folder. For example: **de-DE**, **en-US**. This command line option is not case-sensitive. The tool will try to load the language file specified, but will fall back to the default if it cannot be loaded.

Set Check Location

When you click the **Set Check Location** button, the tool will open a Select Folder dialog box and will try to automatically select the current folder. Depending on your PowerShell settings, this may not be possible. In that case select the folder that currently holds the QA files that you downloaded from the GitHub page.

Once selected, the Base Settings File and Script Language options are enabled.


Base Settings File

This drop-down option lists all the settings files that are currently located in the settings folder. If you have already created a settings file for your environment and want to make changes to it, select the filename from the list. You can also use this option to create a new settings file for a new environment. Just save it as a different filename when you get to the end of the tool.

Script Language

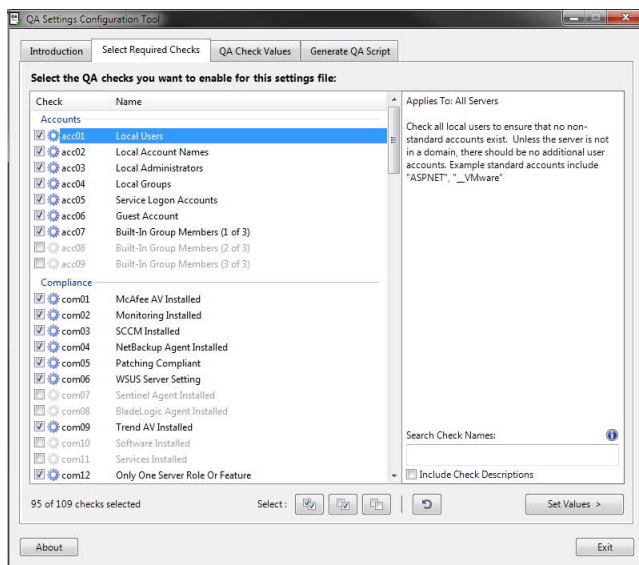
If a specific settings file has already selected a language to use for the scripts, it will be automatically chosen. You can change the language if you wish. This is the language that the scripts and reports use and is different to the tool language option at the top of the window.

Import Settings

The  button will take the selected settings and language files and load them into memory. Any missing language values will be replaced with default ones. The next page is then shown.

Page 2 - Select Required Checks

The second page shows all the available checks grouped into their sections.



Checks can be enabled or disabled as needed. There are a number of checks that are disabled by default. The currently selected check shows its description on the right hand side.

Search

You can also search the checks. By default only the check code and name are searched, but ticking the checkbox "Include Check Description" will also search the descriptions. There are two special search terms that can also be used:

- ! E Will show all enabled checks
- ! D Will show all disabled checks

Quick Selection

The four buttons at the bottom of the page help to quickly change the state of each of the checks. The first three only apply to the checks currently displayed in the window. The last button applies to all the checks. For example, a search filter may be in place that only shows 10 checks. The first three buttons will only act on those 10 checks. The buttons are:

- Select all displayed checks
- Invert displayed checks
- Unselect all displayed checks
- Reset all checks back to setting defaults

Once you have selected all the checks you want to be enabled, click the **Set Values >** button to move to the next page.

Important Note

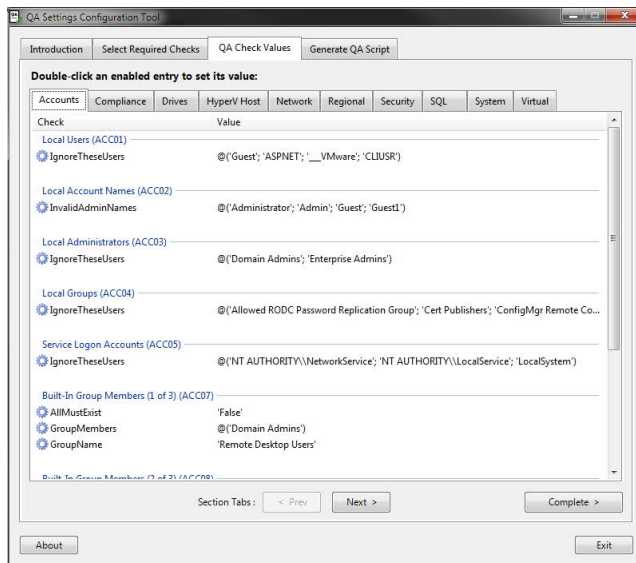
If you return to this page by using the tabs along the top, a warning message will appear along the bottom. This message says:

Note: If you make any selection changes and click "Set Values >", any unsaved changes will be lost.'

This means that if you have made any changes to the values on Page 3, they will be lost if you click the **Set Values >** button again. This is because the tool loads all the settings from the selected settings file when the button is clicked.

Page 3 - QA Check Values

This page is a little more complicated as it has a second row of tab pages. Each page of this second row represents one of the sections that the checks are organised into.

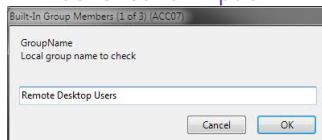


Within each section page, all the settings for the selected checks are shown. They are grouped by check name as several checks have different settings that can be configured. ACC-07 for example has three options, as shown at the bottom of the above screen shot.

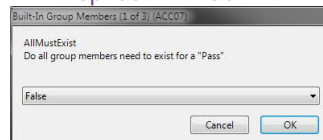
Input Boxes

Double-clicking on an entry will bring up an edit window specifically for the type of input required:

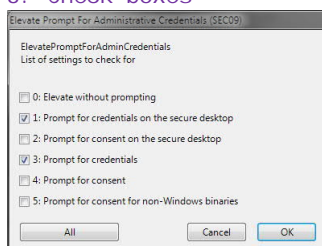
1: Basic text input



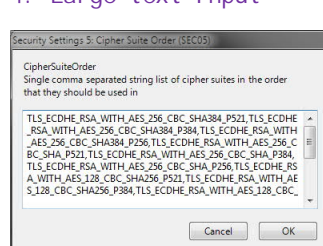
2: Drop down list



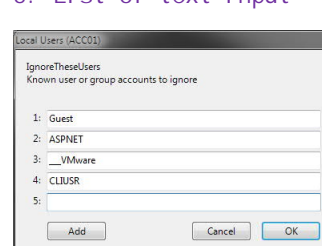
3: Check boxes



4: Large text input



5: List of text input



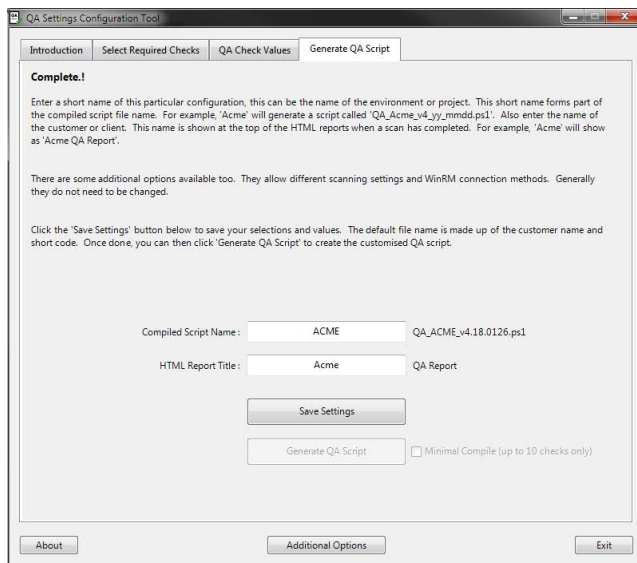
Note, that the last input form (List of text input) has an **Add** button that allows you to increase the number of input boxes if required.

If you already have a list of items ready to copy into this form, you can add them all in the same box and separate each one with a semi-colon (;). The tool will then automatically expand them. For example, entering `Guest; ASPNET; __VMware; CLIUSR` will give the same result as shown above.

Once you have completed configuring all the settings you need, click **Complete >** to move to the next page.

Page 4 - Generate QA Script

Now that you have completed all your changes the last page is shown.



Compiled Script Name

The compiled script name should be a meaningful name to help distinguish this settings file from any others. It could represent a particular customer (Acme) or environment (DEV, TEST, LIVE). There is a 12 character limit.

If you are creating a settings file from the default-settings base, then the Compiled Script Name will be blank. If you are using a different base file, this will be automatically filled in from that settings file. When you enter a name, the QA file name that will be generated is shown.

HTML Report Title

The report title is shown at the top left of every HTML report. It is post-fixed with "QA Report". For example, the default value is Acme, so the report header would be Acme QA Report. There is a 16 character limit for this field.

Save Settings

Once the above two entries have been filled in, you can click **Save Settings**. This will allow you to save the settings file you have just configured. The default name is made up of the above two values, but you can call it anything you like. If you are editing an existing configuration, save over the existing file.

Generate QA Script

Once the configuration file has been saved the **Generate QA Script** button is enabled. This will compile all the selected checks and environment specific configuration settings into one single customised script.

This script will be saved in the same folder as the tool, which should be the root QA folder. It will be called `QA_{shortname}_v4.yy.mmdd.ps1` where `yy.mmdd` represents the current date.

If you have selected less than 10 checks, the option to generate a minimal script is enabled. This reduces the size of the compiled script to just the checks that have been selected. The use case for this is when you want to run a special cut down script for security or auditing purposes.

Additional Options

There are several additional options that can be configured; however the defaults should be good enough for most people. These options should be set before you click the **Save Settings** button above.

Clicking the **Additional Options** button brings up the following windows:

Additional Options

This form allows you to set any additional settings that help control the QA scripts and its output.

Scanning Reports WinRM Modules

Select how many checks can be executed concurrently and the length of time each one has to run.

Time-out: 60 Seconds Per Check

Concurrency: 5 Checks At A Time

Reset All Cancel Save

Scanning

Specify how long each check has to run before it fails with a timeout message. The default is 60 seconds.

Specify how many checks to run concurrently. This only applies to local server scanning. The default is 5 checks.

Additional Options

This form allows you to set any additional settings that help control the QA scripts and its output.

Scanning Reports WinRM Modules

Select the output location for the HTML, CSV and XML reports. This includes any check generated files (Event Logs, etc.).

Report Location: C:\QA\Results\

Reset All Cancel Save

Reports

Specify the default location for where the HTML, CSV and XML reports are saved. This is also the location for any check generated files. For example, SYS-05 saves system event log entries and will store them in a sub-folder under this one.

Additional Options

This form allows you to set any additional settings that help control the QA scripts and its output.

Scanning Reports WinRM Modules

Select which port WinRM should use and whether HTTPS should be used or not. Credentials are specified on the command line.

Use SSL: ☐ For WinRM Connections

Connection Port: 5985 (default: 5985 or 5986)

Reset All Cancel Save

WinRM

This page allows you to specify that remote scanning of servers should use a SSL connection for WinRM. You can also specify a custom port number if required. The default is HTTP and 5985.

Additional Options

This form allows you to set any additional settings that help control the QA scripts and its output.

Scanning Reports WinRM Modules

If any custom checks rely on a PowerShell modules, you can specify them here. If any modules fail to load, the entire scan will be cancelled.

Module List: ... (none)

Reset All Cancel Save

Modules

If one or more custom checks rely on specific PowerShell modules, you can specify them here. If the specified modules do not exist on the scanned server, the entire scan is cancelled.

To add or remove entries, click the **...** button to show a list of text fields input box. The default is none.

Clicking **Reset All** will reset all the values back to the default settings. Click **Save** when done.