

ASAP Manual

Introduction

The need to run a program with administrative rights is often a reason why users "have to" be made local administrators on a client PC or server.

Local admin rights always represent a security gap; they should only be used for program installation. Daily work on the PC should be carried out with normal user rights. Unfortunately, this is not always feasible. A program often needs administrative rights to access resources and requires an administrative account to be specified.

Integrated Windows tools for starting a program with administrative rights are either "RunAs" on the command line or "Run as different user" in the Explorer. The "RunAs" command of the Windows operating system is good in its approach: A program is started with alternative (usually administrative) login information.

Disadvantage: The user must know this login information and may also use it to log in or to start other applications.

ASAP can be used to start an application with alternative administrative credentials, both locally and centrally. The use of ASAP is safe because encryption and checksums are used.





Content

1	ASAP Overview	3
1.1	Why ASAP?	3
1.2	ASAP Components	3
1.3	ASAP Versions	4
2	ASAP Configurator	5
2.1	Use the Wizard to Create an Administrative Link (.eLnk)	5
2.2	Direct Creation of an Administrative Link (without Wizard)	10
2.3	How to Adjust an Existing Administrative Link	11
2.4	Restricting Access to Administrative Links to Certain Users or Groups (ASAP for Enterprise)	12
2.5	Usage Examples	14
2.5.1	Usage Example 1: Installing a .MSI	14
2.5.2	Usage Example 2: Running a .PS1	15
2.5.3	Usage Example 3: Running a .VBS	15
2.5.4	Usage Example 4: Running a .BAT or .CMD	15
2.5.5	Usage Example 5: Running a .MSC	15
3	ASAP GUI	16
3.1	Adding Storage Locations to ASAP GUI	17
3.2	ASAP GUI Colors	19
4	ASAP FAQ - Frequently Asked Questions	20



1 ASAP Overview

1.1 Why ASAP?

Run Programs with Administrative Credentials

Do you work under Windows and want to start a certain program with administrative rights without being logged in as a local administrator?

With Windows on-board tools, you can use the “Run as administrator” option, but each time you have to enter the name and password of another user who has the appropriate administrative rights.

Our Solution: **ASAP** = Automatic and Secure Admincredentials Provider

With ASAP you can create a link to a program and save both the name and the password of an administrative user in this link.

If you then start this program via the ASAP link, it will be automatically run with the credentials of the saved user. Therefore, ASAP links can also be made available to other users without them knowing the name or password of the administrative user account.

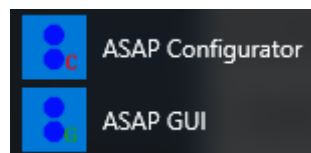
ASAP links are created as .eLnk ("encrypted link") files, i.e. the stored user password is stored in encrypted form.

1.2 ASAP Components

ASAP consists of the following components:

- **ASAP Configurator**
 - Assists you in creating the links.
 - Allows you to change settings in existing links.
- **ASAP GUI**
 - Lists available links and allows to start them from a central tool.
 - Links can be pre-configured and centrally made available.
- **ASAP.EXE**
 - The actual ASAP application that executes an .EXE with alternative administrative rights.
- **ASAP_wrapper**
 - UAC (User Account Control) wrapper that enables applications to be executed with administrative permissions despite enabled UAC.

After you have installed ASAP, the first two components are available in the Start Menu:



1.3 ASAP Versions

ASAP is available in the following two versions:

- **ASAP for Local Use**
ASAP can be used to start a program with credentials of a local user (not a domain user). This version is free of charge and can also be used in companies. However, it does not have all of the features.
- **ASAP for Enterprise**
When using user accounts from an Active Directory domain, licenses have to be purchased per operating system running ASAP: Depending on the number of licenses, the price per license is between € 3 and € 5.

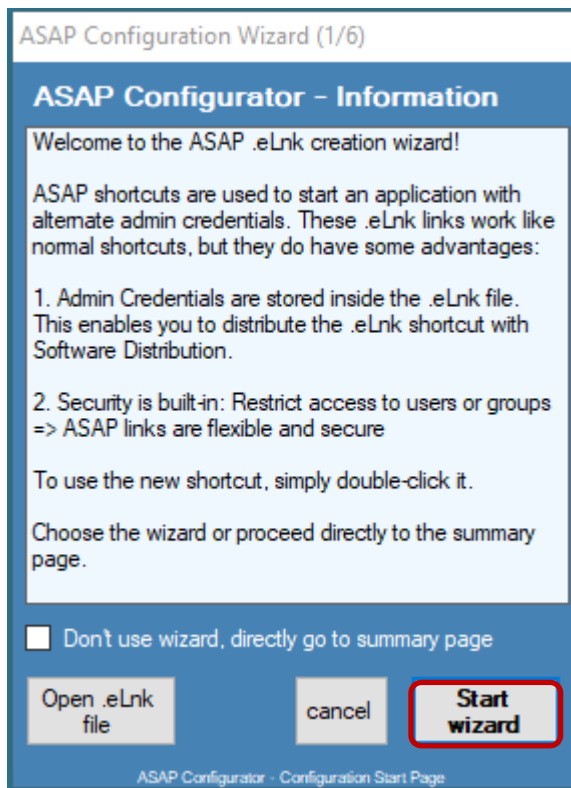
The following table provides an overview of the ASAP functions and their availability in both versions:

Function	ASAP for Local Use	ASAP for Enterprise
Provide user credentials for the start of programs.	✓	✓
Provide user credentials for the start of programs.	✓	✓
Start a program from any path / relative path for the ASAP link.	✓	✓
Use of a checksum to prevent the change of the specified .EXE.	✓	✓
Open and modify existing .eLnk files.	✓	✓
Use of a local administrative user account to start an application.	✓	✓
Use of a domain account to start an application.	✗	✓
Allow an application to run only once.	✓	✓
Only allow certain users or groups to use .eLnk files.	✗	✓
Display all available .eLnk files in a central tool (ASAP GUI).	✓	✓
Centrally provide pre-configured .eLnk files to multiple users (ASAP GUI).	✓	✓
Use privately or in the company.	✓	✓
License Costs per PC	free of charge	€ 3 - € 5

2 ASAP Configurator

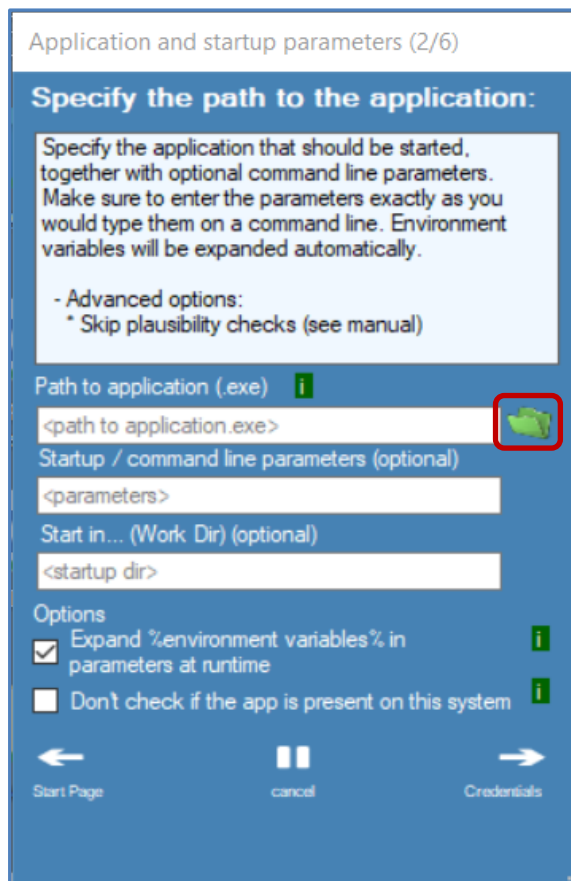
2.1 Use the Wizard to Create an Administrative Link (.eLnk)

How to create an administrative shortcut, e.g. start "cmd.exe" as local administrator:



Step 1/6:

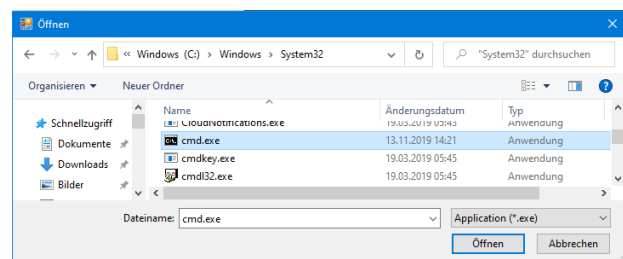
Run **ASAP Configurator** from the Start Menu and click "**Start wizard**".



Step 2/6:

Click the green **folder icon** to select the program that you want to run with administrative privileges.

Select the desired .EXE, e.g.
C:\Windows\System32\cmd.exe.



ASAP always expects an .EXE file as an executable application.

The path and name of the .EXE must not contain quotation marks, even if there are spaces in the name.

Other applications can be started using the "Startup / command line parameters" field. Please note the usage examples in Chapter 2.5.

With ASAP version 2.9.0.0 it is also possible to specify a work directory: *Start in.... (Work Dir) (optional).*

Application and startup parameters (2/6)

Specify the path to the application:

Specify the application that should be started, together with optional command line parameters. Make sure to enter the parameters exactly as you would type them on a command line. Environment variables will be expanded automatically.

- Advanced options:
* Skip plausibility checks (see manual)

Path to application (.exe)

C:\Windows\System32\cmd.exe

Startup / command line parameters (optional)

<parameters>

Start in... (Work Dir) (optional)

<startup dir>

Options

☒ Expand %environment variables% in parameters at runtime

☐ Don't check if the app is present on this system

Start Page cancel Credentials

If your application is to be started with additional parameters, you can enter them in the "**Startup / commandline parameters (optional)**" field.

For example, you can select "C:\Windows\System32\mmc.exe" as application and assign it the start parameter "devmgmt.msc" to start the device manager with administrative rights.

The check box next to the option "**Expand% environment variables% ..**" can no longer be deactivated as of ASAP version 2.2.0.0.

The option "**Don't check if the app is present...**" should only be used **if absolutely necessary** because in this case no checksum will be created for this application. This would make it possible to exchange the specified .EXE for another with the same name, which will then also be run with administrative rights.

Click the **arrow** in the lower right corner to continue and enter the user credentials for the administrative account.

Alternate credentials (3/6)

Specify the alternate credentials:

You should specify a domain account (for network access) -or- a local account (for local use only).

- Enter your domain or enter '.' for a local account.
- Enter the username that should start the application.
- Enter the password for the account specified.

Use my own credentials

Domain \ User \ admin_ASAP

Password =

☐ Don't hide characters

Application Cancel Advanced Options

Step 3/6:

Enter the user with whose credentials you want to start the program:

Domain: Enter the name of your domain here or, alternatively, a dot (.) to use a local user account.

The free ASAP version can only be used with local accounts. To be able to specify a domain user, you need the enterprise version of ASAP.

User: Enter the name of the desired user who has administrative rights on the PC.

In the example on the left "admin_ASAP" is used as a local user account and "admin_as" for a domain user from the "askus" domain.

Password: Enter the password of your administrative user account in the left field and confirm it by entering it again in the right field. After correctly repeating the password, a green tick appears to the right of the repetition field as confirmation.

Click "**Don't hide characters**" if you want to check the password.

Click on the **arrow** at the bottom right to go to the "Advanced Options".

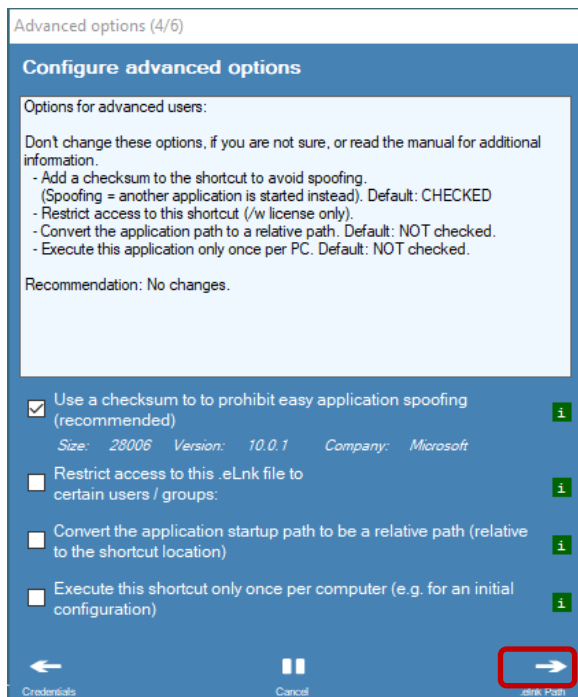
Beispiel für einen Domänenbenutzer (Enterprise Version erforderlich):

Use my own credentials

Domain \ User askus \ admin_as

Password =

☐ Don't hide characters



Step 4/6:

More information about the Advanced Options:

"Use a checksum...." -> ATTENTION: Deactivating this option can allow users to replace the specified program with another .EXE with the same name.

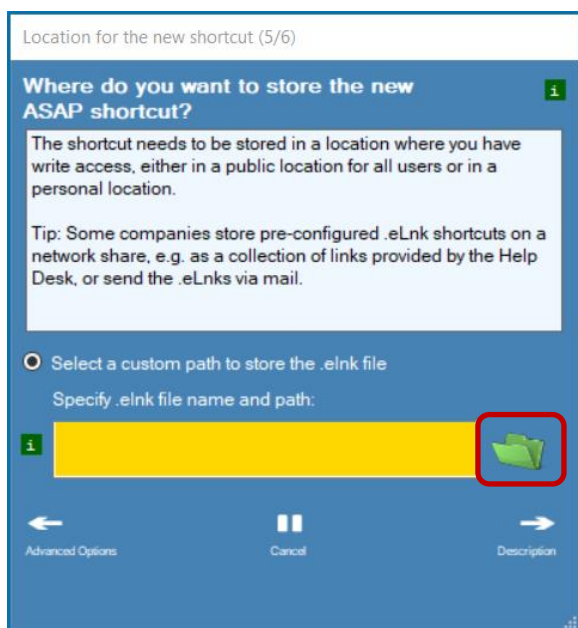
"Restrict access...." -> The function is only available in the Enterprise version and can restrict the use of the .eLnk file to certain users or groups. You can find a more detailed description of this feature in Chapter 2.4.

"Convert the application startup path...." ->

For our example, the path to the command prompt is converted as follows:

"C:\Windows\System32\cmd.exe" becomes ".\cmd.exe". In this case the .eLnk file must also be saved under "C:\Windows\System32". (Useful if an .EXE is to be distributed together with the .eLnk and saved in any location.)

"Execute this shortcut only once..." -> The .eLnk file can only be executed once.

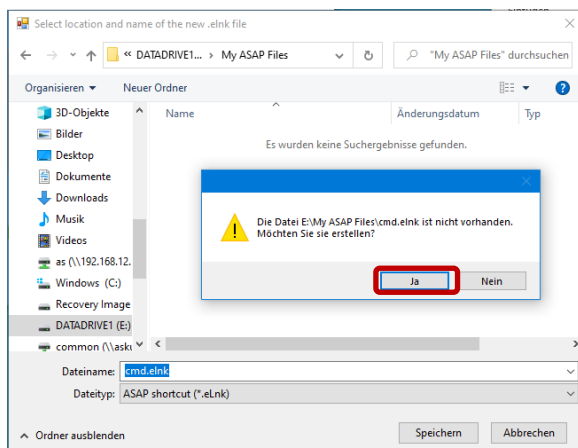
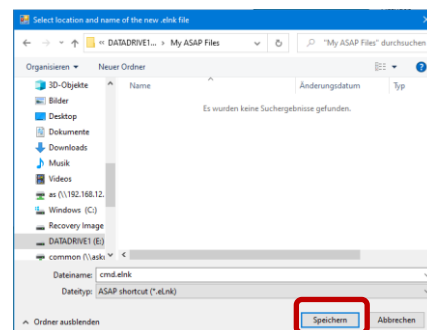


Step 5/6:

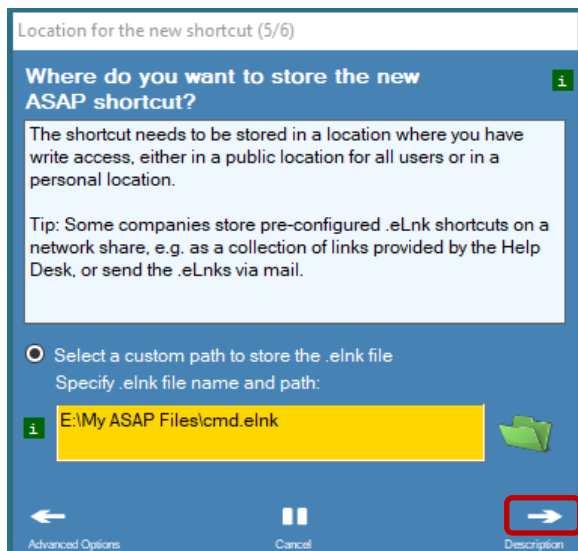
Click the green **folder icon** to specify the path under which you want to save the ASAP shortcut.

Indicate where you want to save the .eLnk file.

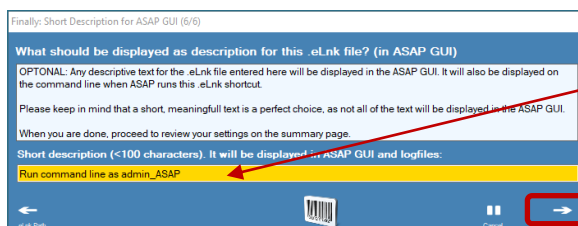
Click **"Save"**.



Confirm with **"Yes"** that the .eLnk file should be created.

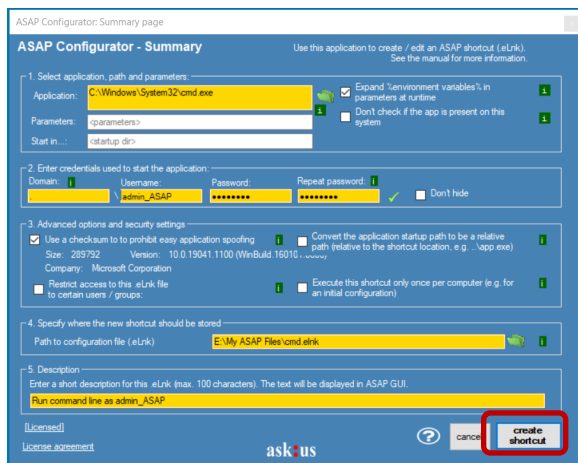


Click the **arrow** in the lower right to confirm your selection.

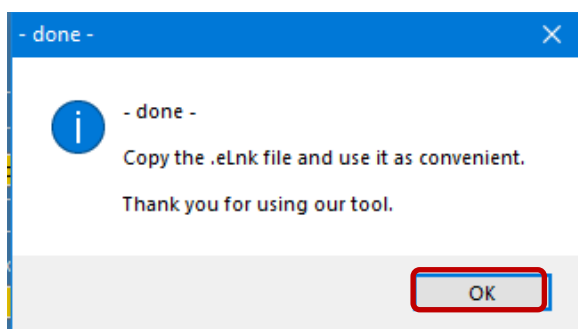


Optionally, enter a description for your ASAP link. Here: "Run command line as admin_ASAP".

Click on the **arrow** at the bottom right to go to the summary.

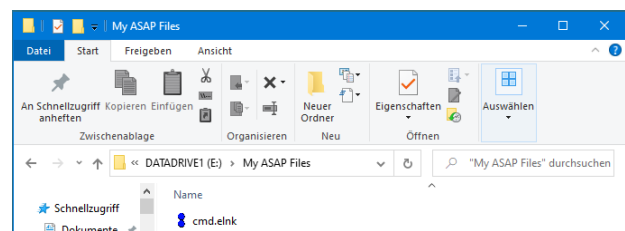


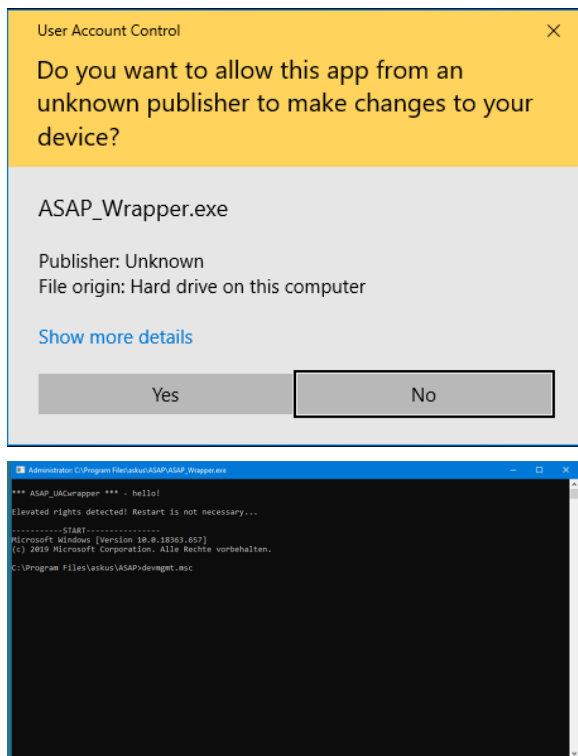
The complete configuration page (ASAP Configurator - Summary) opens. Here you can check all your settings again. Confirm the window with "create shortcut".



Click **OK** to confirm that the .eLnk file was created.

The ASAP Configurator closes and the created .eLnk file can now be found in the specified location:





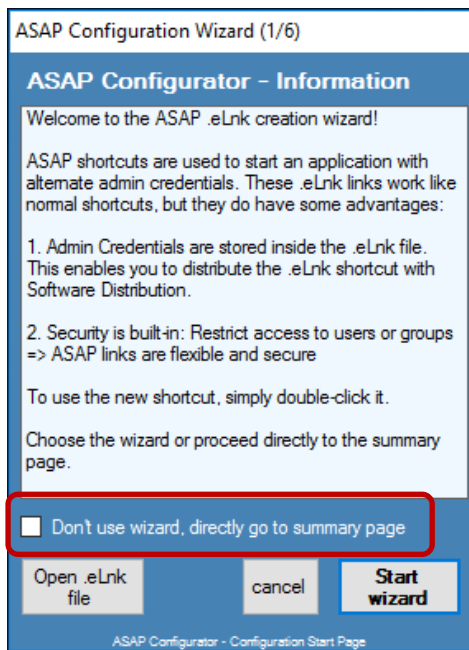
Double-click the .eLnk file to start the specified program with administrative rights.

Please confirm to the User Account Control that "ASAP_Wrapper.exe" which is required for this operation can be executed.

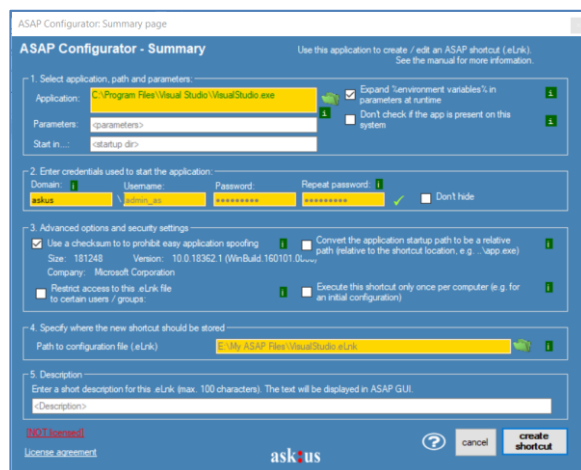
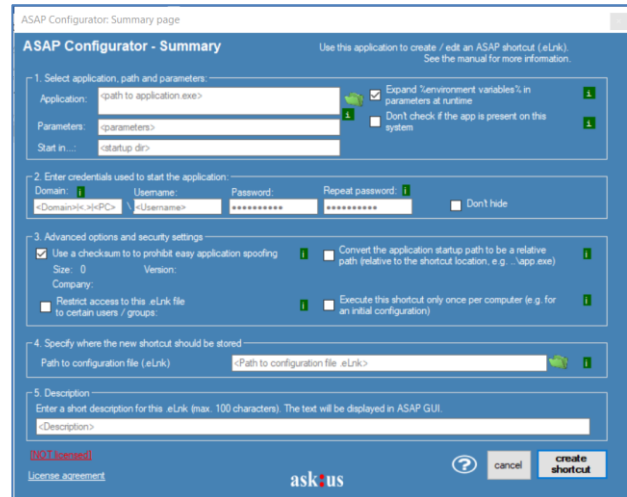
If you have followed our example, simply enter "devmgmt.msc" in the open command line to start the device manager with administrative rights.

You will see: There is no more message that administrative rights are required. 😊

2.2 Direct Creation of an Administrative Link (without Wizard)



If you activate the check box "Don't use wizard, directly go to summary page" on the start page of the ASAP Configuration Wizard, you will be forwarded directly to the complete configuration page ("ASAP Configurator - Summary").



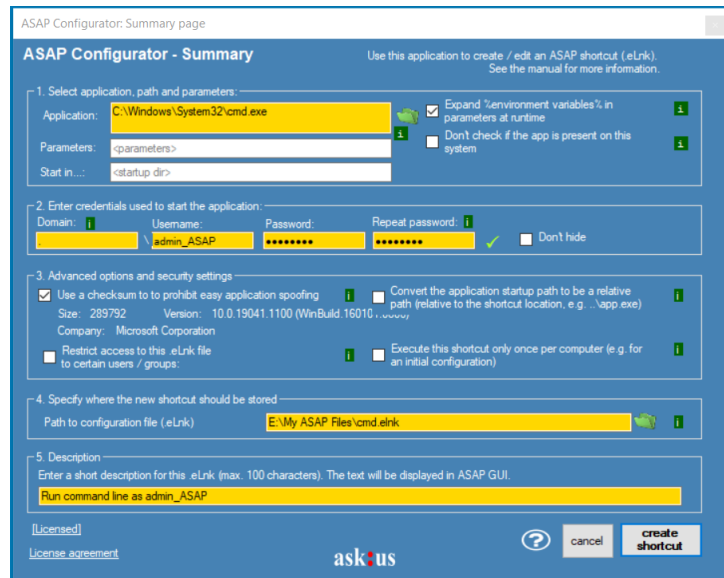
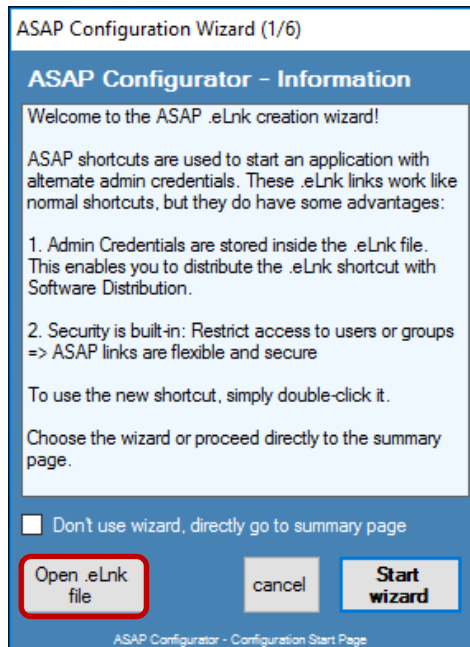
Make your desired entries on this page.

After you have entered and checked all the required information, you can create the administrative link directly using the "create shortcut" button.

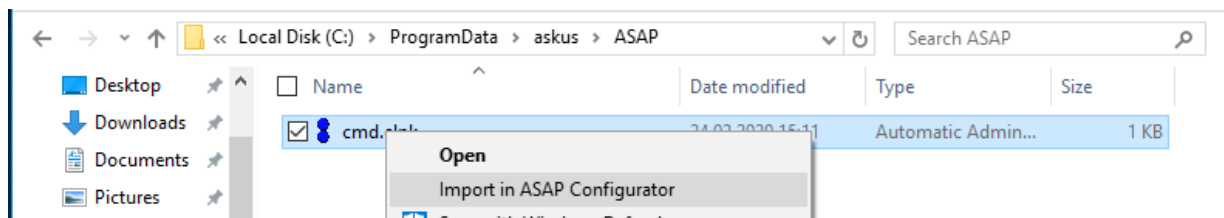
2.3 How to Adjust an Existing Administrative Link

If you want to change the settings of a created .eLnk file later, start the ASAP Configurator and click on **"Open .eLnk file"** and select the file to be changed.

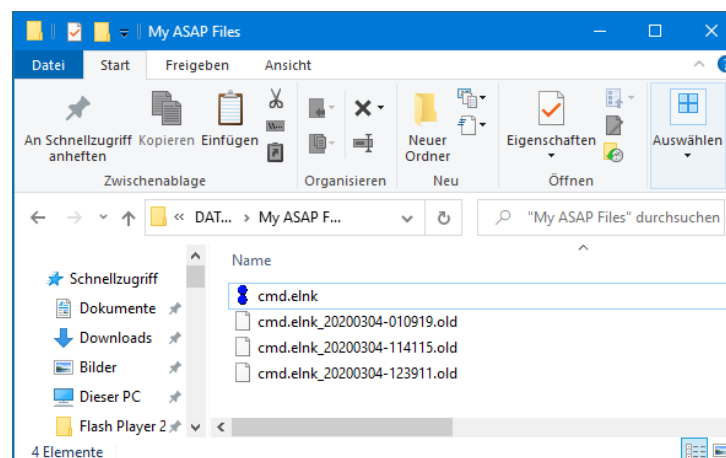
You can make the required adjustments via the "ASAP Configurator - Summary" window. For security reasons, you have to re-enter the password of the administrative user again before you can save the changed .eLnk file.



- i** As of ASAP version 2.8.5.0 you can also right-click an .eLnk file and open it for editing using the **"Import in ASAP Configurator"** command:



- i** If you save a modified .eLnk file under the same name and path, ASAP automatically creates a backup copy of the old version:



2.4 Restricting Access to Administrative Links to Certain Users or Groups (ASAP for Enterprise)

In certain scenarios it may be desirable that not every user is allowed to run a certain administrative link. If you have licensed the Enterprise version of ASAP, proceed as follows:

Advanced options (4/6)

Configure advanced options

Options for advanced users:

Don't change these options, if you are not sure, or read the manual for additional information.

- Add a checksum to the shortcut to avoid spoofing. (Spoofing = another application is started instead). Default: CHECKED
- Restrict access to this shortcut (/w license only).
- Convert the application path to a relative path. Default: NOT checked.
- Execute this application only once per PC. Default: NOT checked.

Recommendation: No changes.

☒ Use a checksum to prohibit easy application spoofing (recommended)

Size: 28006 Version: 10.0.1 Company: Microsoft

☒ Restrict access to this .eLnk file to certain users / groups:

☐ Convert the application startup path to be a relative path (relative to the shortcut location)

☐ Execute this shortcut only once per computer (e.g. for an initial configuration)

← Credentials ||| Cancel → eLnk Path

Start the wizard.

In Step 4/6, enable the checkbox next to **"Restrict access to this .eLnk file to certain users / groups"**.

You will then see two icons that allow you to restrict access either to

Users



or

Groups



Click on the appropriate icon.

Add legitimate groups

Add groups that are allowed to use this .eLnk shortcut

Provide group names that are allowed to use this ASAP shortcut.

Enter a domain and group name, then click '+' to add an entry.

To delete an entry, select it in the list and click 'x' to remove it.

Legitimate groups:

Select domain: askus Type group name: ASAP_User

Information: You cannot add local group names or wildcards.

cancel commit

Select the domain that should be used. The domain(s) shown in the list are dependent on your license.

Enter the desired user or the desired group (*here in the example the group "ASAP_User"*).

Add legitimate groups

Add groups that are allowed to use this .eLnk shortcut

Provide group names that are allowed to use this ASAP shortcut.

Enter a domain and group name, then click '+' to add an entry.

To delete an entry, select it in the list and click 'x' to remove it.

Legitimate groups:

Select domain: askus Type group name:

askus\ASAP_User

Information: You cannot add local group names or wildcards.

cancel **commit**

Click on the green "plus" icon to add a group (or user).

Confirm your selection with the "commit" button.

Proceed as usual with the creation of the administrative link.

```

C:\PROGRA~1\askus\ASAP\ASAP.exe
*** ASAP V2.8.5.0 *** Automatic Secure Admincredential Provider - hello!
ASAP Usage is free with local accounts, support can be booked additionally.
Domain accounts need to have a license per device with ASAP installed.
(c)2011 ff. askus GmbH, Muenster, Heilbronn. All rights reserved.

... using logfile C:\Users\AS2319-1\ASK\AppData\Local\Temp\ASAP.log
User is NOT a legitimate user (based on the list of allowed usernames)!
-----
The current user is neither a named legitimate user nor a member of a named legitimate group. The user has no legitimat
on to use this .eLnk file.
ASAP will exit now, ... (a bit sad, as it was forbidden to continue)
(see the manual for more information)

Press any key to continue...

```

ASAP Configurator: Summary page

ASAP Configurator - Summary Use this application to create / edit an ASAP shortcut (.eLnk). See the manual for more information.

1. Select application, path and parameters

Application: C:\Windows\System32\cmd.exe ☒ Expand %environment variables% in parameters at runtime ☐ Don't check if the app is present on this system

Parameters: -parameters

2. Enter credentials used to start the application

Domain: askus Username: \admin_as Password: ***** Repeat password: ***** ☐ Don't hide

3. Advanced options and security settings

☒ Use a checksum to prohibit easy application spoofing ☐ Convert the application startup path to be a relative path (relative to the shortcut location, e.g. ...app.exe)

Size: 280064 Version: 10.0.18362.656 (WinBuild.160101.....)

Company: Microsoft Corporation

☒ Restrict access to this .eLnk file to certain users / groups ☐ Execute this shortcut only once per computer (e.g. for an initial configuration)

4. Specify where the new shortcut should be stored

Path to configuration file (.eLnk): E:\My ASAP Files\restricted_cmd.eLnk

5. Description

Enter a short description for this .eLnk (max. 100 characters). The text will be displayed in ASAP GUI.

cmd restricted to members of the ASAP_User group

[Licensed] License agreement askus ? cancel create shortcut

When creating the restriction, ASAP does not check whether the specified user or group actually exists in the Active Directory. Only when the administrative link is executed is checked whether the executing user has the appropriate authorizations. If he is not authorized, he receives the message "User is NOT a legitimate user" and the execution is aborted.

If you would like to change existing restrictions, you can do this at any time by opening the existing .eLnk file for editing as usual.

If you want to remove existing restrictions, it is not sufficient to remove the check mark in front of "Restrict access ...". You must first remove the specified users or groups by clicking on the corresponding user / group icon.

Remove registered users / groups with the red "X" and confirm with the "commit" button.

Add legitimate groups

Add groups that are allowed to use this .eLnk shortcut

Provide group names that are allowed to use this ASAP shortcut.

Enter a domain and group name, then click '+' to add an entry.

To delete an entry, select it in the list and click 'X' to remove it.

Legitimate groups:

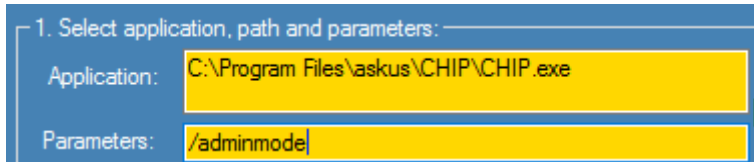
Select domain	Type group name
askus	\
askus	ASAP_User

Information: You cannot add local group names or wildcards.

cancel commit

2.5 Usage Examples

ASAP always expects an .EXE file as an executable application. This is the simplest application, in which usually nothing else needs to be taken into account. You simply refer to the corresponding application, and if your application is to be started with certain parameters, add these in the "Parameters" section:



1. Select application, path and parameters:

Application: C:\Program Files\askus\CHIP\CHIP.exe

Parameters: /adminmode

i Unlike the application, which must be specified without quotation marks, you should always put the required paths in quotation marks for the parameters to be on the safe side. If the path contains any spaces they are mandatory.

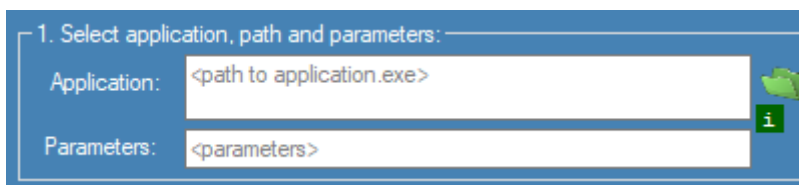
How can other scripts or installation files be started via ASAP?

Other file types than .EXE files cannot be entered directly as "Application:", but must be given as a parameter for the associated .EXE that can be executed via an eLnk file.

This is explained in the following usage examples. Learn how to run the following file types using ASAP:

- Windows Installer - .MSI
- PowerShell Script - .PS1
- VB Script Files - .VBS
- Batch Files - .BAT or .CMD
- Microsoft Management Console Snap-ins - .MSC

Our examples will be limited to the relevant information each:



1. Select application, path and parameters:

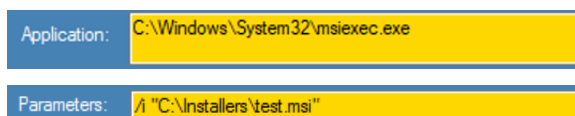
Application: <path to application.exe>

Parameters: <parameters>

Configure all other parameters as described in Chapter 2.1.

ATTENTION: ASAP only checks the checksum of the specified .EXE file. If you specify a script as a parameter, it will not be checked for changes. If you want to make a script available to your users via ASAP, you should ensure that they are not authorized to change the content of the script. The easiest way to do this is to make the script available via a network drive on which the users only have read access.

2.5.1 Usage Example 1: Installing a .MSI



Application: C:\Windows\System32\msiexec.exe

Parameters: /i "C:\Installers\test.msi"

Refer to msiexec.exe under "Application":
C:\Windows\System32\msiexec.exe

Enter the following in the "Parameters" field:

/i [Path][InstallerName]

In the example: /i "C:\Installers\test.msi"

2.5.2 Usage Example 2: Running a .PS1

Application: `C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe`

Parameters: `-executionpolicy bypass "C:\Scripts\test.ps1"`

Refer to the powershell.exe under "Application":
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe

Enter the following in the "Parameters" field:
`-executionpolicy bypass [Path][ScriptName]`
In the example: -executionpolicy bypass „C:\Scripts\test.ps1“

2.5.3 Usage Example 3: Running a .VBS

Application: `C:\Windows\System32\wscript.exe`

Parameters: `"C:\Scripts\test.vbs"`

Refer to the wscript.exe under "Application":
C:\Windows\System32\wscript.exe
(Alternatively, of course, cscript.exe can also be used.)

Enter the following in the "Parameters" field:
`[Path][ScriptName]`
In the example: "C:\Scripts\test.vbs"

2.5.4 Usage Example 4: Running a .BAT or .CMD

Application: `C:\Windows\System32\cmd.exe`

Parameters: `/C "C:\Scripts\test.bat"`

Refer to the cmd.exe under "Application":
C:\Windows\System32\cmd.exe

Enter the following in the "Parameters" field:
`/C [Path][ScriptName]`
In the example: /C "C:\scripts\test.bat"
(Running a .cmd file works in the same way.)

2.5.5 Usage Example 5: Running a .MSC

Application: `C:\Windows\System32\mmc.exe`

Parameters: `"C:\Windows\System32\services.msc"`

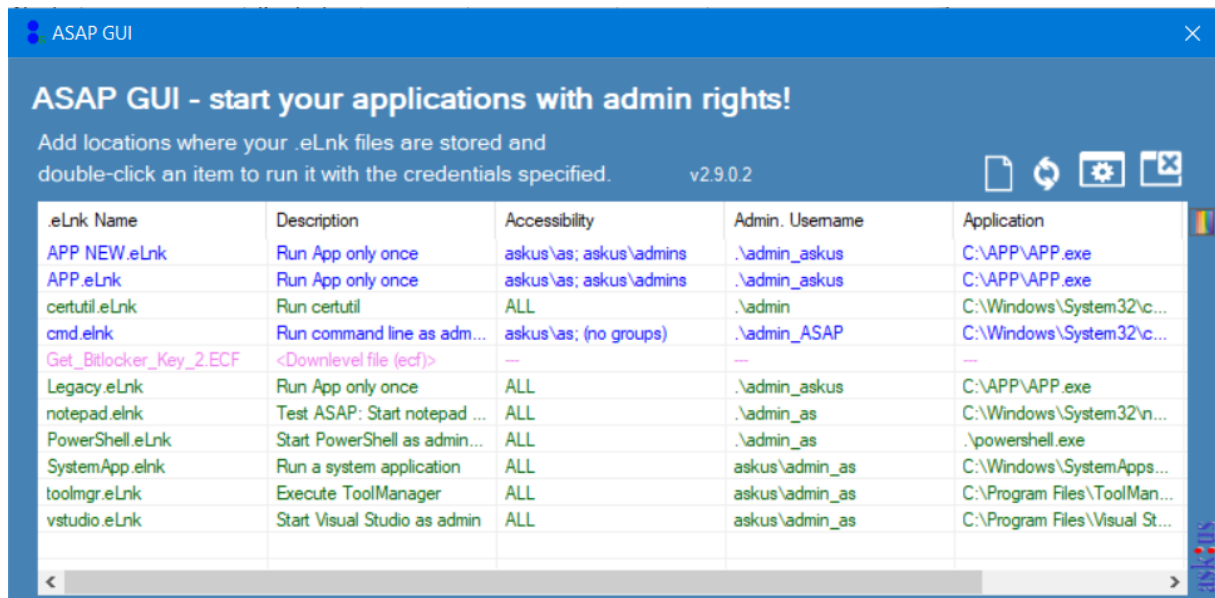
Refer to the mmc.exe under "Application":
C:\Windows\System32\mmc.exe

Enter the following in the "Parameters" field:
`[Path][MSCName]`
*In the example:
"C:\Windows\System32\services.msc"*

3 ASAP GUI

All available .eLnk links can be displayed in one central window via the ASAP GUI. The individual applications can be started here very simply by double-clicking.

Thus, the ASAP GUI allows preconfigured .eLnk files to be made centrally available to the users (e.g. via a network drive).

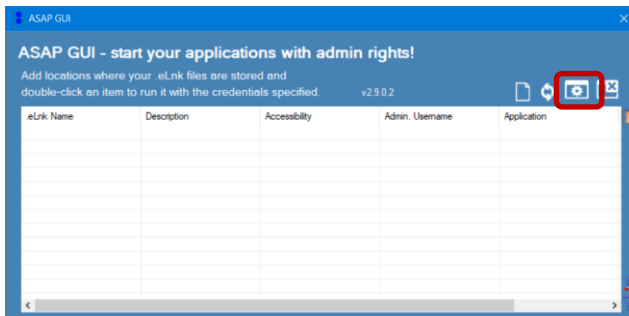


You can use the provided symbols to perform the following actions:

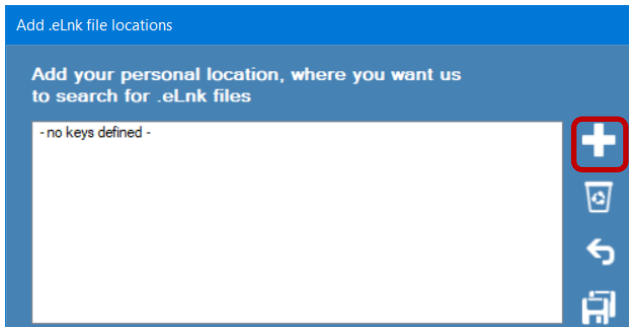


- Start ASAP Configurator to create / change .eLnk links
- Refresh the view
- Add additional .eLnk storage locations (locally or on the network)
- Exit ASAP GUI
- Show the meaning of the different colors

3.1 Adding Storage Locations to ASAP GUI



Start ASAP GUI and click on the "Add" symbol:



Click the "plus" icon to add .eLnk files from any location.



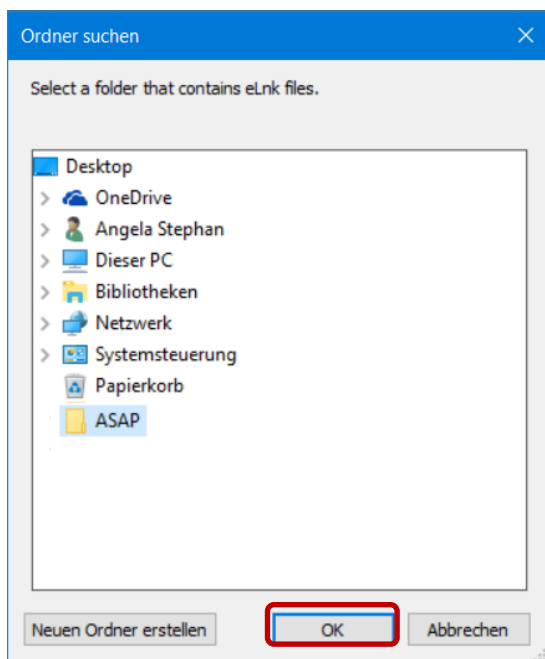
i You can also do the following here:



Remove selected storage locations

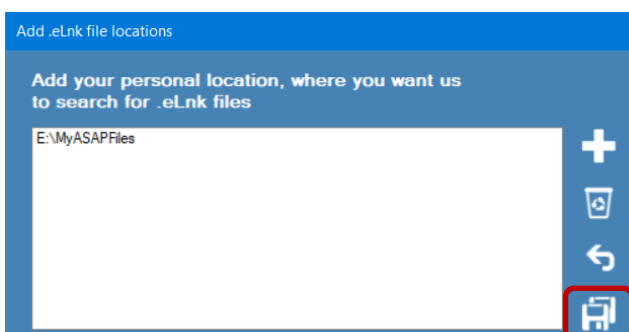


Return to ASAP GUI without any changes



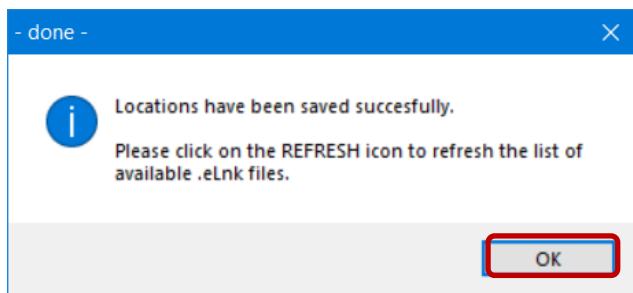
Select the desired folder and confirm with **OK**.

i If necessary, repeat those steps for each location that stores .eLnk links that you want to add.

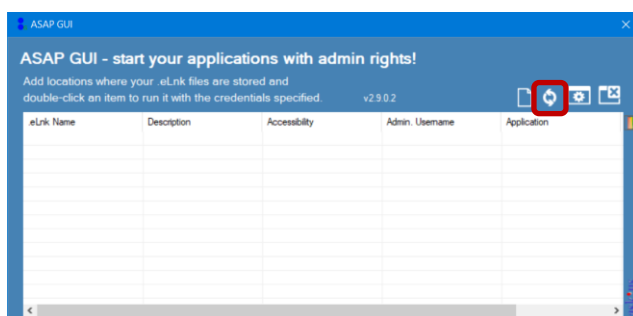


Click on the "Save" icon to confirm your selection:

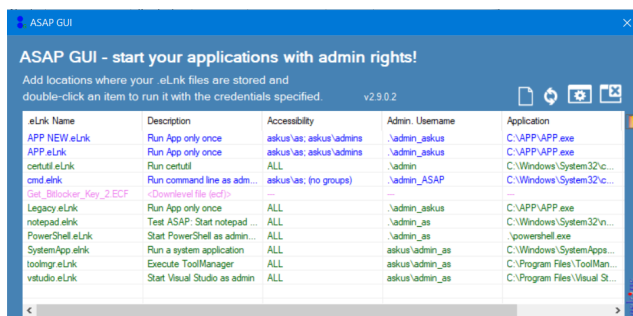




Confirm the message that the file has been saved with **OK**.

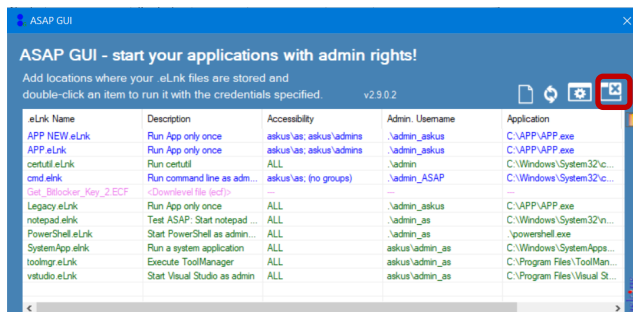


Select the "**Update**" icon to display the added .eLnk links:



You will now see all files that are available in the specified location.

i ASAP GUI always shows all .eLnk links available in a storage location. If you do not want to see certain links in the GUI, they must be removed from the storage location or given a different ending there.



You can start the individual programs directly from the GUI by **double-clicking**.

To **exit** the ASAP GUI, click on:



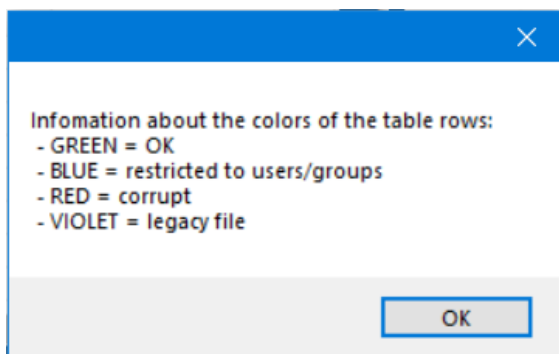
3.2 ASAP GUI Colors

ASAP GUI - start your applications with admin rights!

Add locations where your .eLnk files are stored and double-click an item to run it with the credentials specified. v2.9.0.2

eLnk Name	Description	Accessability	Admin. Username	Application
APP NEW eLnk	Run App only once	askus\as; askus\admin	.admin_askus	C:\APP\APP.exe
APP eLnk	Run App only once	askus\as; askus\admin	.admin_askus	C:\APP\APP.exe
certutil eLnk	Run certutil	ALL	.admin	C:\Windows\System32\c...
cmd eLnk	Run command line as admin...	askus\as; (no groups)	.admin_ASAP	C:\Windows\System32\c...
Get_BitLocker_Key_2 ECF	<Download file (.ecf)>
Legacy eLnk	Run App only once	ALL	.admin_askus	C:\APP\APP.exe
notepad eLnk	Test ASAP: Start notepad ...	ALL	.admin_as	C:\Windows\System32\n...
Powershell eLnk	Start PowerShell as admin...	ALL	.admin_as	\powershell.exe
SystemApp eLnk	Run a system application	ALL	askus\admin_as	C:\Windows\SystemApps...
toolmgr eLnk	Execute ToolManager	ALL	askus\admin_as	C:\Program Files\ToolMan...
vsstudio eLnk	Start Visual Studio as admin	ALL	askus\admin_as	C:\Program Files\Visual St...

Click on the "rainbow" icon on the right to see the meaning of the different colors of the rows:



GREEN = .eLnk file is OK

BLUE = Access has been restricted to certain users or groups (feature is only available in the Enterprise version)

RED = .eLnk file is corrupt

VIOLET = old ASAP file in .ECF format

4 ASAP FAQ - Frequently Asked Questions

Below we have listed some frequently asked questions and answers, some are decisive for the purchase, others may come up during operation.

1. [Does the account specified in ASAP Configurator necessarily have local admin rights?](#)
2. [Does the account specified in the ASAP Configurator have to be a Domain Administrator?](#)
3. [Must the file extension .eLnk be registered by the system, or can ASAP also be used with the command line?](#)
4. [Can all applications be started with ASAP administrative credentials?](#)
5. [Can ASAP also be installed on a Terminal Server?](#)
6. [Can ASAP start applications directly from a network drive?](#)
7. [Why do I get a security warning when I start an application from a network drive via ASAP?](#)
8. [Can ASAP itself, i.e. ASAP Configurator, be started from a file share?](#)
9. [Can ASAP .eLnk files \(administrative links\) be run from a file share?](#)
10. [How does ASAP transfer the administrative credentials transfer to Windows, is it using a service?](#)
11. [What are the ASAP components, and how do they work together?](#)
12. [What has changed in ASAP versions? \(change history\)](#)

1. QUESTION: Does the account specified in ASAP Configurator necessarily have local admin rights?

ANSWER:

Yes. The purpose of the tool is to provide an admin account (ASAP = Automatic and Secure Admin-Credentials Provider).

- *In addition, the account must have the rights that it needs to execute the specified program. Usually, however, local admin rights are sufficient here.*
- *Due to the functionality of the tool, the account specified in ASAP Configurator will start another process with alternative rights ("impersonation"). For this, the Windows operating system requires elevated rights, which are per se available for admin accounts.*
- *Theoretically, it would be possible to assign the corresponding set of rights to a "normal" user, but this is very complex and against the Windows security model. As a result, the account used in ASAP Configurator must have local admin rights.*

2. QUESTION: Does the account specified in the ASAP Configurator have to be a Domain Administrator?

ANSWER:

No. It is sufficient to use an account who has local admin rights.

- *However, one conceivable exception would be if the application itself, that is started via ASAP, requires domain admin rights.*

3. QUESTION: Must the file extension .eLnk be registered by the system, or can ASAP also be used with the command line?

ANSWER:

ASAP can also be used without the file extension. It's just more comfortable.

- *The link only extends the "knowledge" of Windows how to open an .eLnk file.*
- *To run ASAP manually, just add the following parameters: (please replace information in <...>)*
`<Path to ASAP.exe>\asap.exe <Path to .eLnk file>\<FileName>.eLnk`

4. QUESTION: Can all applications be started with ASAP administrative credentials?

ANSWER:

As good as all of them. ASAP Configurator expects an .EXE file as application. But with the "Parameters" option, applications such as .MSI, .BAT, .CMD, .PS1, .VBS, .MSC and others can be easily started (see case studies in chapter 2.5).

- *However, applications that rely on the ability to write information to the profile of the currently logged-on user cannot be run via ASAP. They would write the information to the wrong profile, namely the profile of the administrative account stored in the .eLnk file. In those rare cases, ASAP will unfortunately not work.*

5. QUESTION: Can ASAP also be installed on a Terminal Server?

ANSWER:

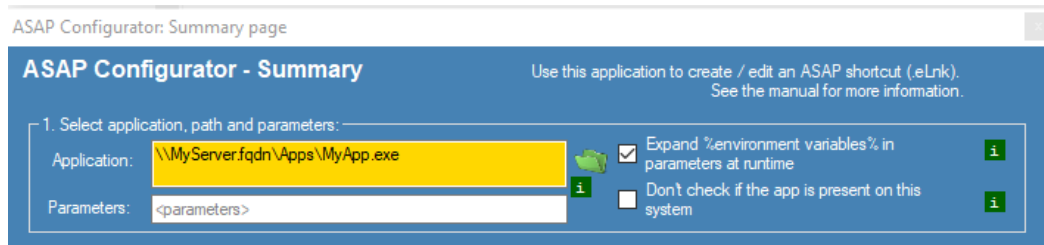
Yes. You can also use ASAP on a Terminal Server. In this case, you need one ASAP license per Terminal Server CAL.

6. QUESTION: Can ASAP start applications directly from a network drive?

ANSWER:

Yes. ASAP can also start applications over the network. However, you should use UNC paths to run an .EXE from a network drive, e.g. [\\MyServer.fqdn\Apps\MyApp.exe](#). If possible, do not use drive letters.

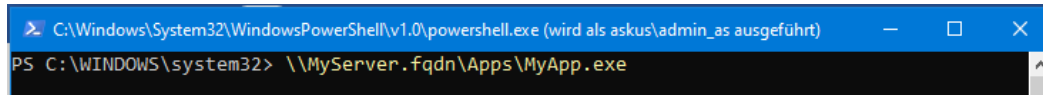
- *How to add an application with UNC path to ASAP Configurator:*



- *Please remember that the user account stored in the ASAP .eLnk file requires appropriate access rights to the specified application, including its path. In an enterprise environment, this will be a domain user (requires ASAP for Enterprise).*

- If you want to test whether the application can generally be started with the user account specified in ASAP, you can do this e.g. with the help of the PowerShell: Either log in as this user or execute powershell.exe via the RunAs command, providing the credentials of this user.

Start the application via PowerShell. If this command works, the application can also be executed over the network using ASAP:



```
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe (wird als askus\admin_as ausgeführt)
PS C:\WINDOWS\system32> \\MyServer.fqdn\Apps\MyApp.exe
```

- If an application absolutely needs a drive letter, you must use a script, which first connects the file share to the desired letter, and afterwards starts the application from this drive. The background to this is that any drive letter is permanently associated with the user's credentials. Thus, you must first make the drive available to the user who is stored in the ASAP .eLnk.

If you want to know how to execute scripts via ASAP, you can find various case examples in chapter 2.5 of this manual. But note: It is important that you protect your scripts against unauthorized changes, granting appropriate permissions.

7. QUESTION: Why do I get a security warning when I start an application from a network drive via ASAP?

ANSWER:

Windows Security may block the execution of an application from the network drive. This has nothing to do with ASAP but with Windows. Allow Windows to run this application:

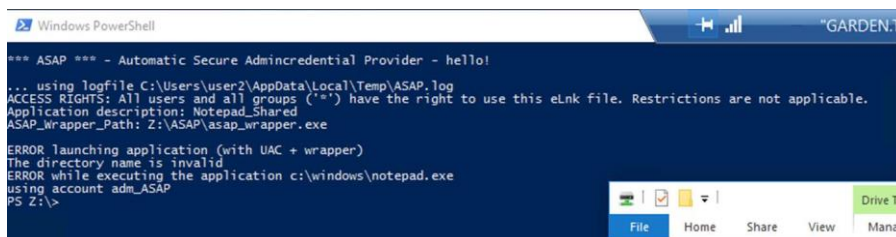
- Control Panel / Internet Options / Local Intranet / Sites / Advanced / Add and / or
- Add Windows Defender exception for the network drive (UNC path or drive letter AND UNC path)

8. QUESTION: Can ASAP itself, i.e. ASAP Configurator, be started from a file share?

ANSWER:

Unfortunately, no. ASAP requires a local installation.

- The background is that the ASAP wrapper is started by the ASAP.exe with alternative credentials. This leads to a second connection between the PC and the server with additional credentials. Unfortunately, LAN Manager / Windows network cannot handle this.
- The following test shows that it is not possible (by design of Windows):



```
Windows PowerShell
*** ASAP *** - Automatic Secure Admincredential Provider - hello!
... using logfile C:\Users\user2\AppData\Local\Temp\ASAP.log
ACCESS RIGHTS: All users and all groups ('*') have the right to use this eLnk file. Restrictions are not applicable.
Application description: Notepad_Shared
ASAP_wrapper_Path: Z:\ASAP\asap_wrapper.exe
ERROR launching application (with UAC + wrapper)
The directory name is invalid
ERROR while executing the application c:\windows\notepad.exe
using account adm_ASAP
PS Z:\>
```


9. QUESTION: Can ASAP .eLnk files (administrative links) be run from a file share?

ANSWER:

Yes. .eLnk files can be run from any path.

- *Storage on a file share has the advantage that the links can be managed at a central location.*
- *However, the installation on a file share has the disadvantage that the security function of the local checksum cannot be used, because usually locally installed programs are executed.*
- *This disadvantage can be compensated by granting the users read-only permissions to the file share.*

10. QUESTION: How does ASAP transfer the administrative credentials transfer to Windows, is it using a service?

ANSWER:

ASAP does not contain any constantly active components, that is, no service, no tool in the system tray or other, constantly running applications. The credentials are - according to the current state of the art - encrypted with .NET mechanisms using 256-bit algorithms and saved in the .eLnk shortcut. They are only used when ASAP is started to run the external application.

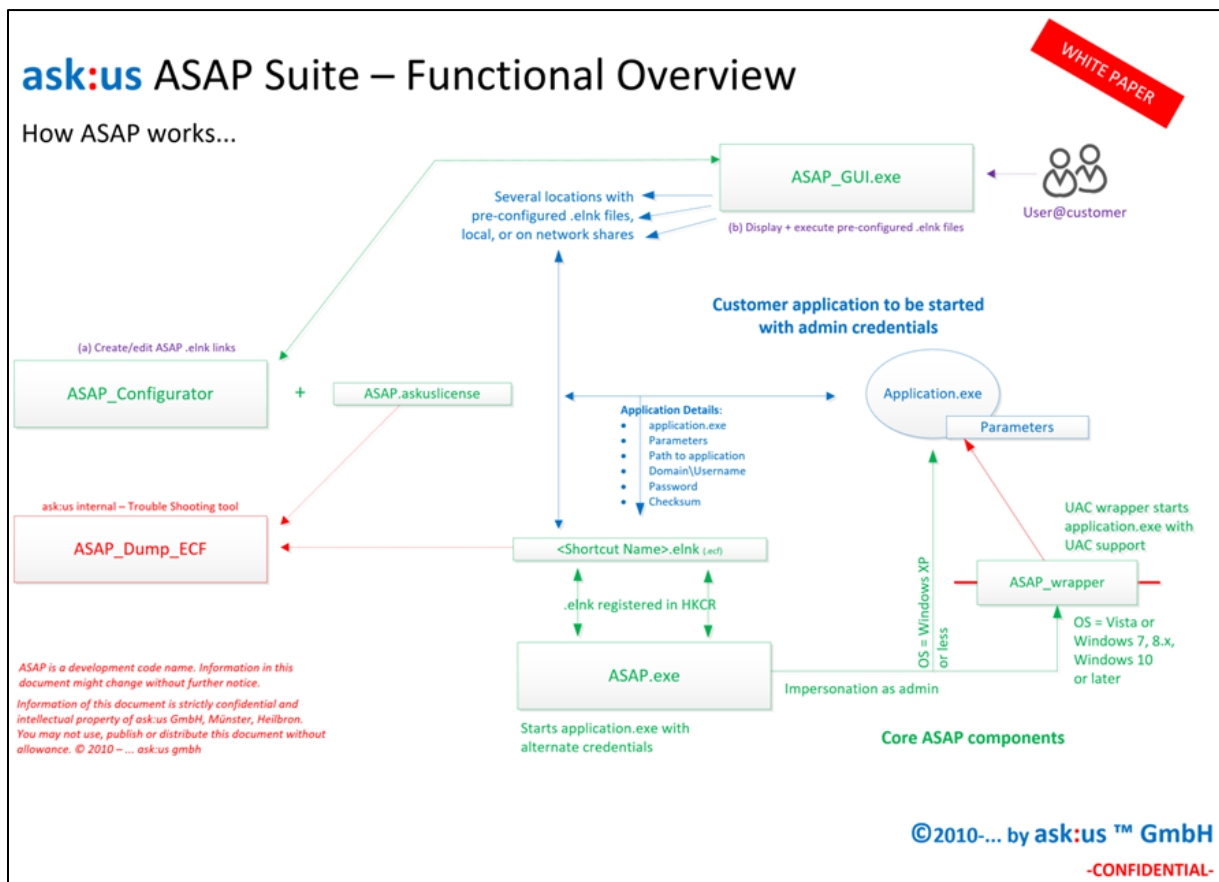
The ASAP functionality can be compared to a Windows shortcut (.lnk / shortcut):

- *A Windows Shortcut (.lnk) contains the path and the name of the application to be started as well as the parameters to be used for the start. Optional parameters for Windows compatibility, screen resolution, etc. supplement the basic information. Windows shortcuts can be read with a text editor.*
- *With ASAP Shortcuts (.eLnk - [e stands for encrypted]), the basic information (name, path, parameters) is also included. In addition, it contains information concerning the administrative account that is used for the start of an application, including username and password, as well as information who can use this shortcut, and some security information such as checksums, etc. However, the content of the .eLnk file is encrypted and cannot be read with a simple text editor.*
- *Double-clicking an ASAP .eLnk shortcut automatically starts ASAP.exe, which decrypts the content, checks whether the logged-in user has permissions to use the shortcut, and then starts the application with the alternative rights, taking the UAC into account.*
- *The decrypted credentials will be loaded to the computer's main memory at the start of ASAP and removed as soon as ASAP terminates (after ca. 10 seconds).*

11. QUESTION: What are the ASAP components, and how do they work together?

ANSWER:

Good ;-) The following picture illustrates the interaction of the ASAP components:



12. QUESTION: What has changed in ASAP versions? (change history)

ANSWER:

The respective changes are documented in the change history.

v2.9.0.x

- + Remove bug when .elnk file information is empty (e.g. due to missing rights)
- + Convert ASAP_UACWrapper to c# and use named parameters
- + Add a class to support named parameters + mnew Syntax command line in ASAP Configurator: -file <> | -? | -skipwizard
- + Starting ASAP_Configurator with -SkipWizard option only opens a empty summary page
- + Use named parameters in ASAP GUI
- + Review GUI design in Configurator and GUI
- + Remove ASAP Dump ECF from ASAP Suite
- + Adjusted name of class to ASAP_SUITE (instead of ASAPSUITE) in all apps
- + .elnk files have an additional line: WorkDir, and the workmdir is supported in all ASAP components
- + Adjusted number of lines for versions 2.8 and earlier and 2.9 to provide compatibility for legacy elnk files: v2.9 can open v2.8 and older, but older versions cannot open new files
- + No change in license handling: Also v2.9 cannot be restricted to just one version
- + Add a field for working directory in elnk, and support for working directories in all components
- + Check if re-opening an eLnk file with restrictions to a username and then disabling the restriction also deletes the Username restriction (Test OK am 21.1.)
- + Preparations for ASAP v3
 - (+) remove all references to ASAP_Config.ecf completely (comment only => the idea is the basic stock for GPO support)
- + Removed time wait after "press any key" in ASAP.exe and shortened to 5 secs
- + Removed ASAP.exe /silent and -silent parameters, as well as -help /help /? and updated help text

v2.8.5.0

General / all executables

- + Added code to be able to encrypt / decrypt empty and NULL strings into the elnk file
- + Added Change Log (this file)
- + Added structure for license data
- + Completely revised Decryption algorithm
- + Integrated GARDEN _classes for Client, server, rules, request and license
- + Minor corrections in spelling
- + Removed 'old' code signing certificate
- + Added version display and license hint in ASAP

ASAP_CONFIGURATOR

- + added option to load a file at startup (but start with wizard anyways)
- + added switch -SkipWizard
 - ⇒ Command line possible: ASAP_CONFIGURATOR.EXE -SKIPWIZARD "Filename to open.elnk"
 - ⇒ New command line switch allows right-click on .elnk file: "Import in ASAP Configurator" when the latest MSI Installer I used

v2.8.4.0

- + Change log has been restarted after the first official release of ASAP on the home page
- + For previous entries, please contact the developer team

'Version History

'v1.0.0.0 first version, working

'v2.1.0.0 new version to homogenize ASAP versioning (Sep 2011), changed key

'v2.2.0.0 new key, homogenized versioning, GUI updates

'v2.7.1.0 Modified ASAP Dump ECF to include Keys to decrypt GARDEN

'v2.8.0.0 New certificate valid until 2018

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