What is an auto-containment rule?

- Auto-containment rules let you define which applications can run on managed devices, and what privileges they are allowed.
- Comodo Client Security (CCS) on a device consults these rules every time a program is opened.
- Each rule consists of 3 basic elements:
    1. **Action** - choice of:
        - **Run Virtually** - The application is run inside the container, a highly secure environment that is isolated from the rest of the endpoint.
        - **Run Restricted** - The application has limited privileges, can access very few operating system resources and can only open 10 processes at a time.
        - **Block** - The application is not allowed to run at all.
        - **Ignore** - The application can run as normal outside the container.
    2. **Target** - The applications, file groups or folders that you want to monitor in the rule. You can also add filters to target files that meet certain conditions.
    3. **Options** - Choose the trust level of the files you picked in #2. You can also set limits on memory consumption, execution time, and log options.
- This tutorial explains how to create auto-containment rules in a Windows profile.

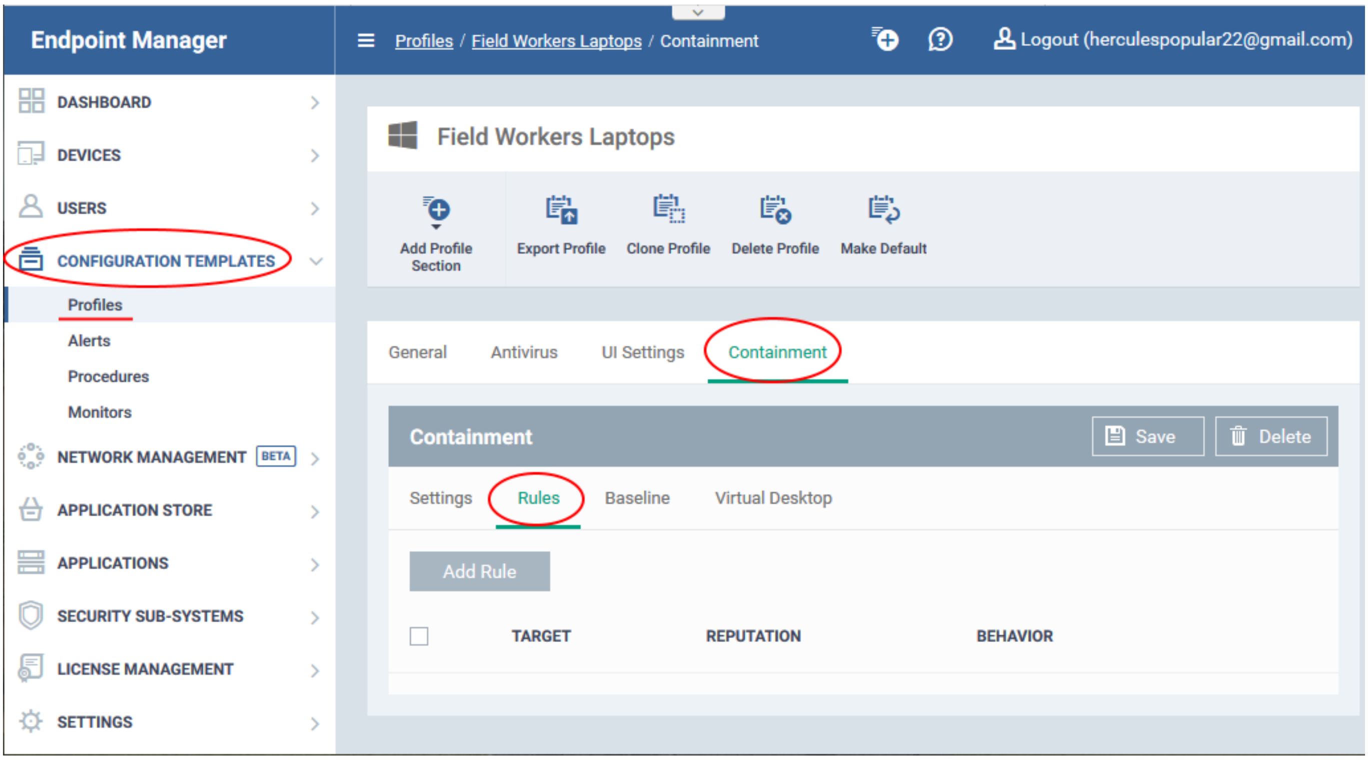
Create an auto-containment rule

- Login to ITarian
- Click 'Applications' > 'Endpoint Manager'
- Click ‘Configuration Templates’ > ‘Profiles’
- Open the Windows profile applied to your target devices
    - Open the 'Containment' tab

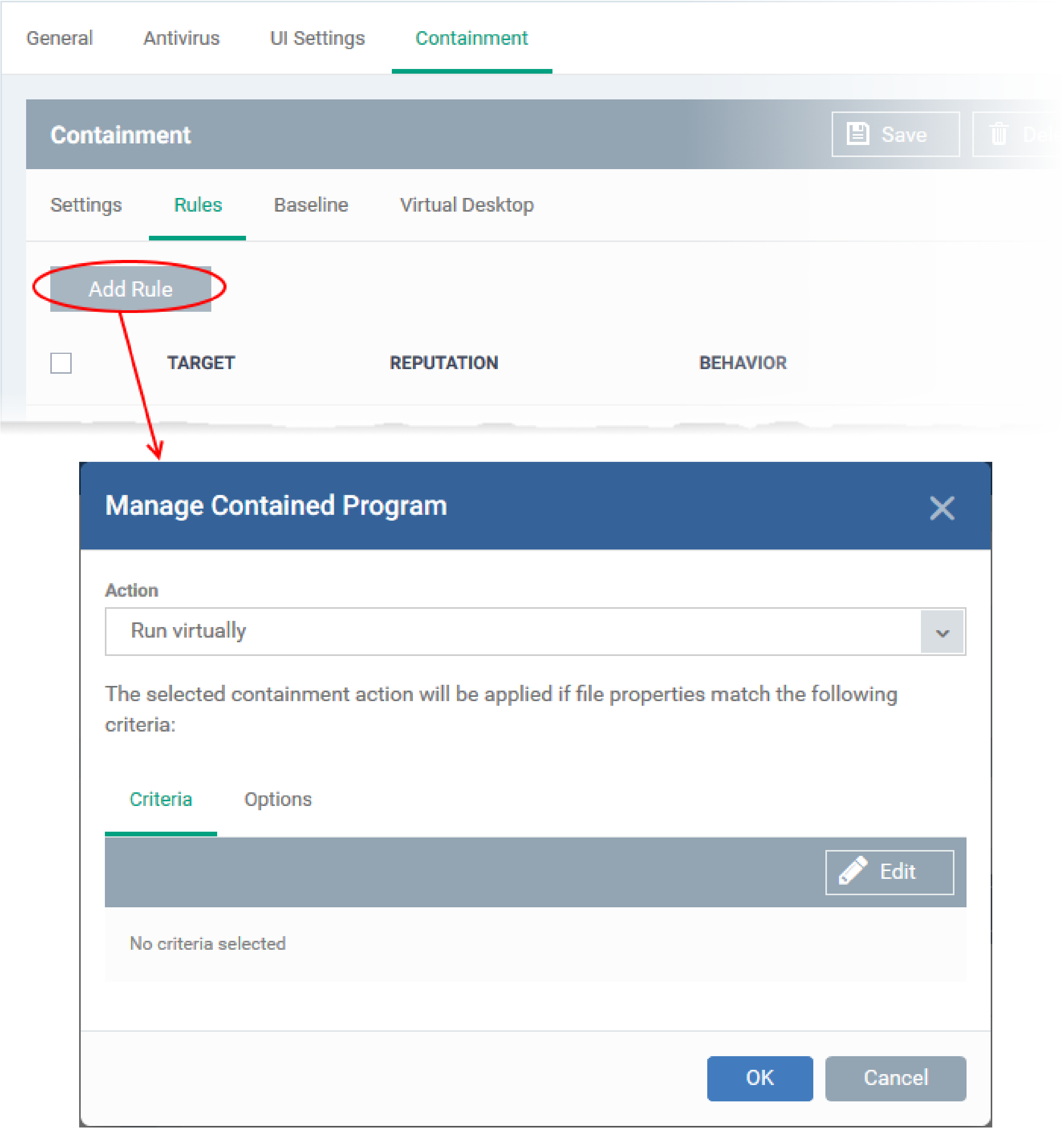
      OR

    - Click 'Add Profile Section' > 'Containment', if it hasn't yet been added:

- Click the 'Rules' tab



- Click 'Add Rule'



Action

Run virtually

The selected containment action will be applied if file properties match the following criteria:

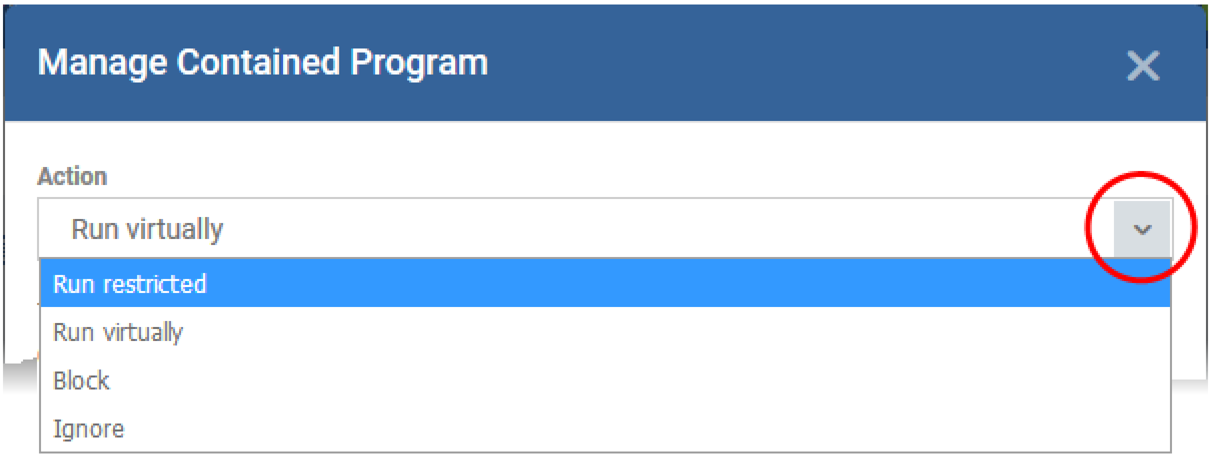
No criteria selected

Follow these three steps to create your rule:

- Step 1 – Choose the action
- Step 2 – Select targets and set filters
- Step 3 – Select additional options

Step 1 – Choose the action

The 'Action', in combination with the restriction level in the 'Options' tab, determines the privileges of a contained application.



Manage Contained Program

Action

Run virtually

Choose one of the following actions:

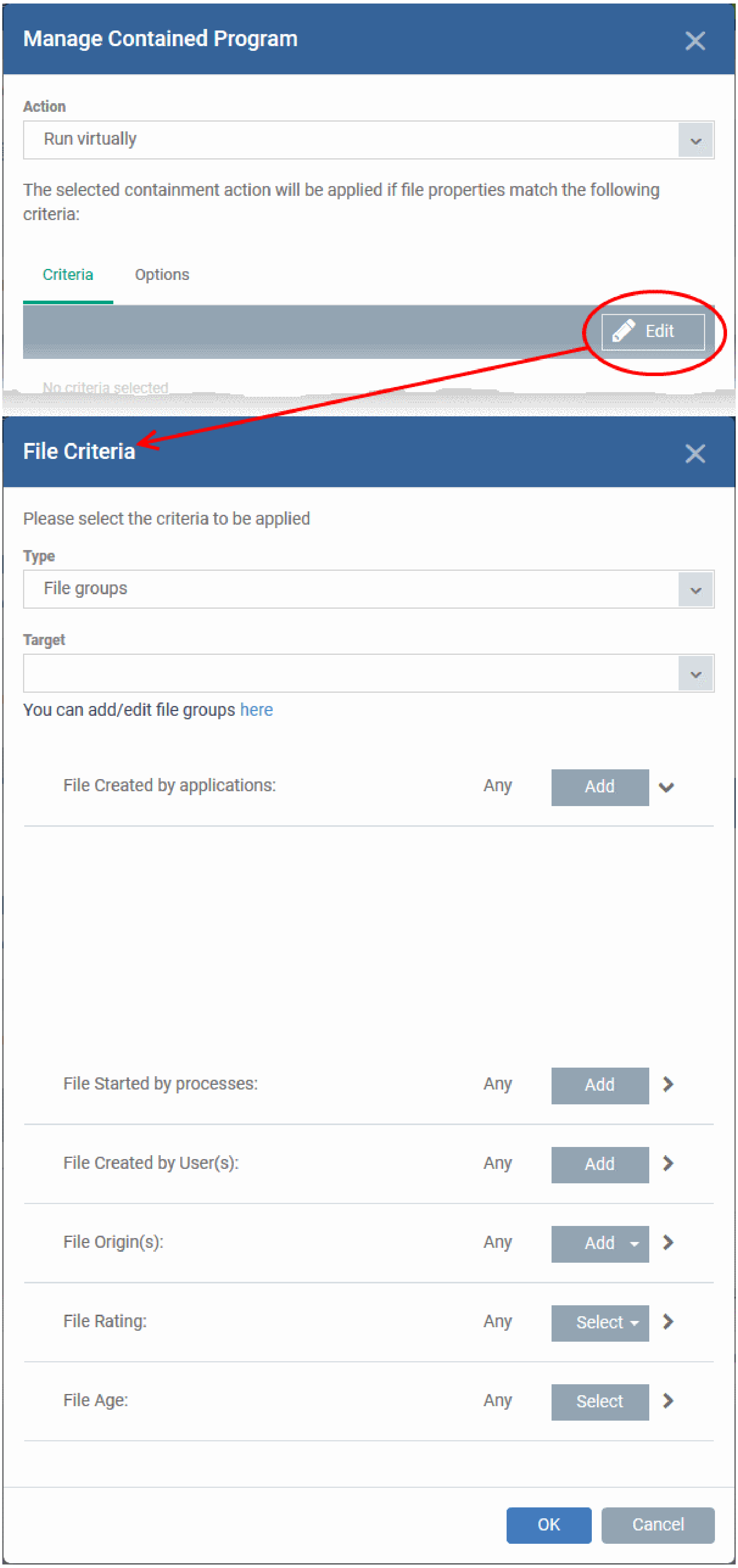
- **Run Virtually** - The application is run inside the container, a highly secure environment that is isolated from the rest of your computer.
- **Run Restricted** - The application is allowed to access very few operating system resources. It is not allowed to execute more than 10 processes at a time and has very limited privileges. Some applications, like computer games, may not work properly under this setting.
- **Block** - The application is not allowed to run at all.
- **Ignore**- The application can run as normal outside the container.

Step 2 – Select rule targets and filters

- The targets are the files/folders/groups that are covered by the rule.
- You can filter a rule so it applies to a narrower sub-set of files.
  - For example, you can specify 'All executables' as the target, then add a filter so it only affects executables from the internet.
  - Another example is if you want to allow unknown files created by a specific user to run outside the container. You would create an 'Ignore' rule with 'All Applications' as the target, then add 'Files created by a specific user' as the filter.

Set target and filters

- Click the 'Criteria' tab
- Click 'Edit' at top-right:



Manage Contained Program

Action

Run virtually

The selected containment action will be applied if file properties match the following criteria:

File Criteria

Please select the criteria to be applied

Type

File groups

Target

You can add/edit file groups here

File Created by applications:	Any	Add
File Started by processes:	Any	Add
File Created by User(s):	Any	Add
File Origin(s):	Any	Add
File Rating:	Any	Select
File Age:	Any	Select

- Click ‘Browse’ to choose the file/folder/group you want to target with the rule.
- Choose any filters you require from the list. Filters let you narrow the scope of the rule so it only catches files that meet certain conditions.
- If you don’t want any filters then skip straight to step 3
- Click ‘OK’

See the following links if you want help to select a target or add a filter:

- Select the target
- Configure filters

Select the target

- Click 'Type' drop-down to choose an application, file group, hash, or folder as your target
    - **Files** - Browse to a specific file.
    - **File Groups** - Apply the rule to predefined file groups.
        - A filegroup is a collection of files which (usually) share similar attributes and/or functionality. For example, the 'Executables' group is a list of file types that can run code on your computer.
        - You can view and manage file groups in 'Settings' > 'System Templates' > 'File Groups Variables'.
    - **Folder** - Apply the rule to all files in a folder or drive
    - **File Hash** - Apply the rule to all files that have a specific SHA1 hash value.
        - A hash value is a large number that is generated by passing the file through a hashing algorithm. The number uniquely identifies the file, and it is extremely unlikely that two files will ever generate the same hash value. The benefit of using a file hash is that the rule will still work even if the file name changes.
        - Enter the SHA1 hash value of the target executable file in the 'Target' field.
    - **Process Hash** - Apply the rule to files whose processes have a specific SHA1 hash value. Please see the description above if required.
        - Enter the SHA1 hash value of the process created by the target file in the 'Target' field.

Configure filters

Filters let you narrow the scope of a rule. Once set, the rule will only apply if the target file meets the conditions you specify.

The available filters are:

- By application that created the file

- By process that created the file
- By user that created the file
- By file origin
- By file rating
- By file age

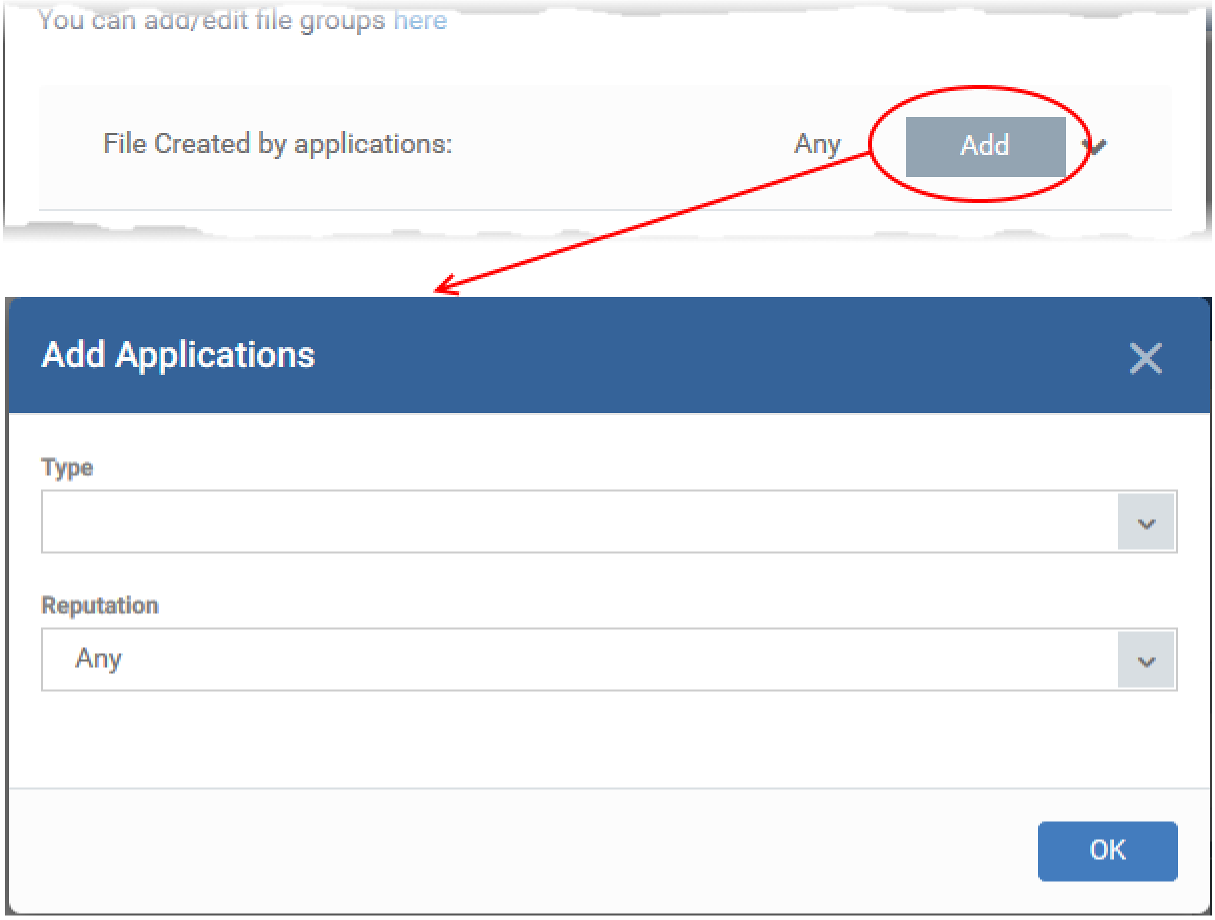
Files created by a specific application

Apply the rule to a file based on its source application.

You can also specify the file rating of the source application. The rule will only contain a file if its parent app has a certain trust rating.

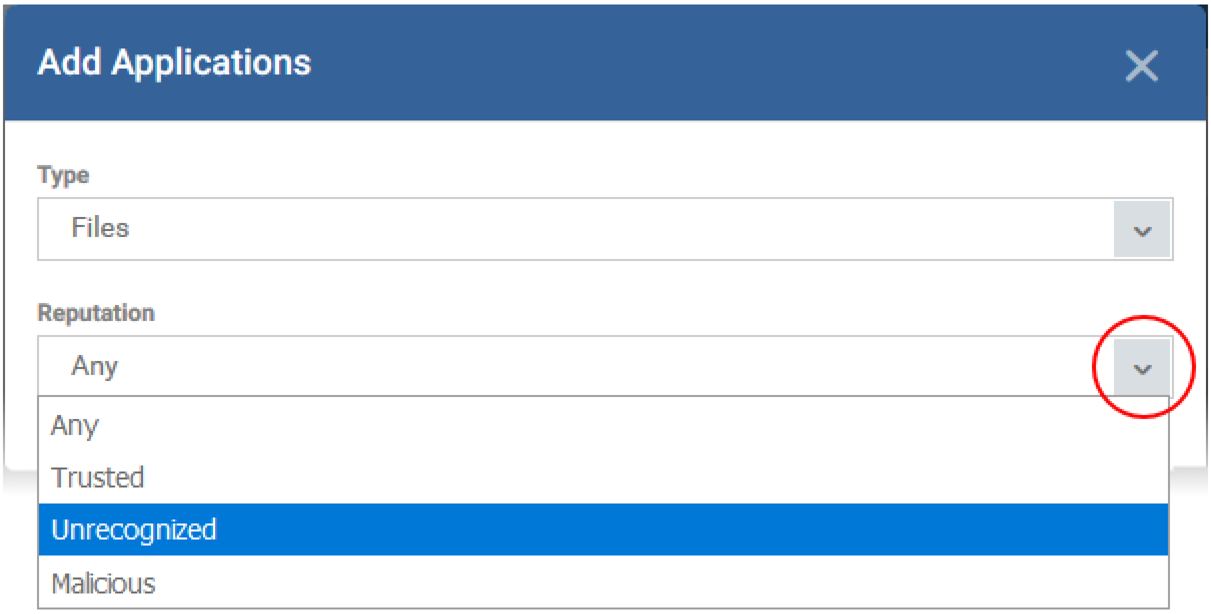
Specify the source application:

- Click the 'Add' button in the 'File Created by applications' stripe.



You can add/edit file groups here

- **Type** - The target types are the same as explained above.
- **Reputation** - Choose the file rating of the source you specified in the 'Type' drop-down:



- Click 'OK' to save your settings

- Repeat the process to add more source applications

Files created by a specific process

- Applies the rules to files created by a particular parent process.

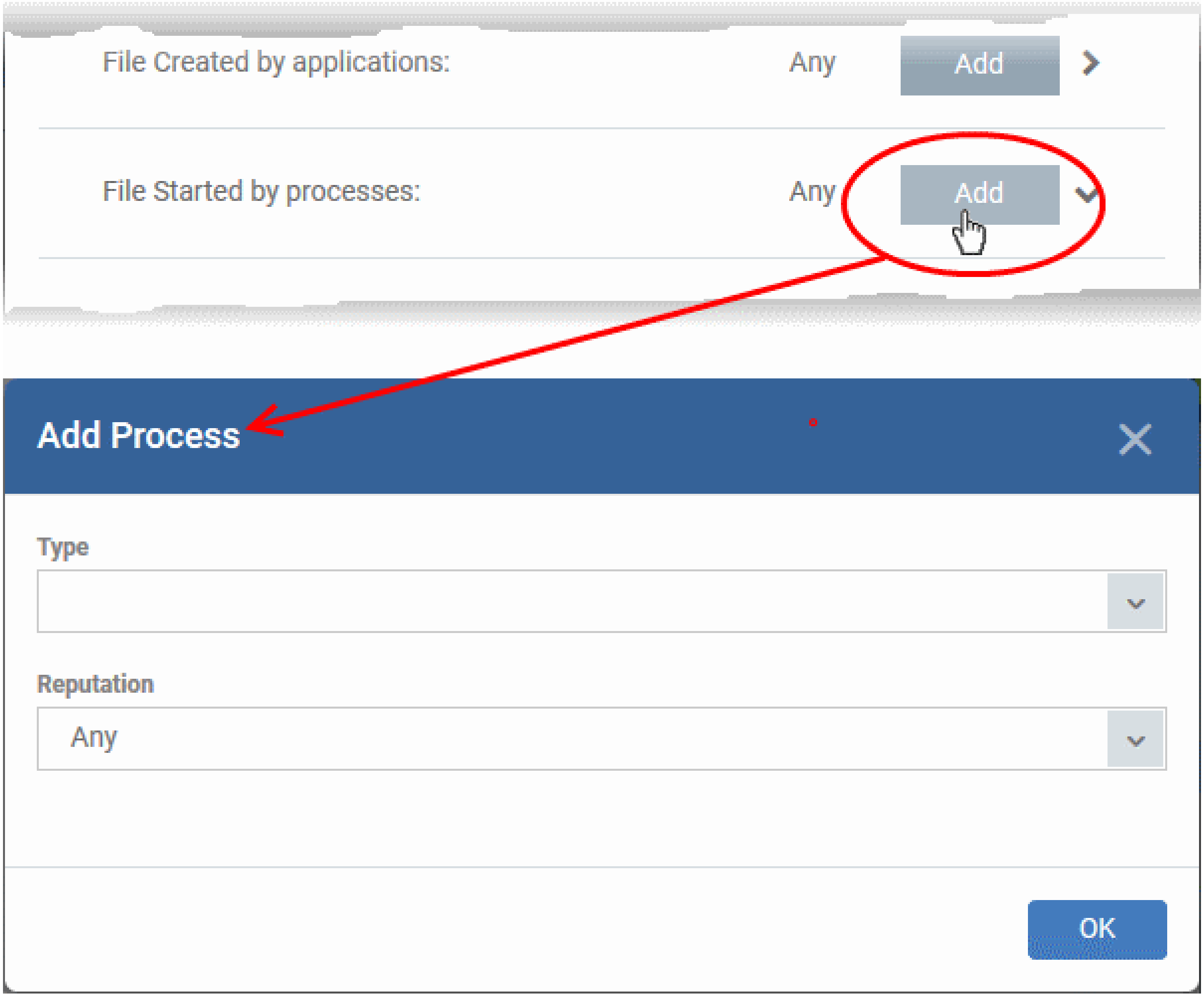
- You can also specify:

  - The file rating of the source. The rule will only contain a file if its parent process has a certain trust rating.

  - The number of levels in the process chain that should be inspected.

Specify source processes

- Click the 'Add' button in the 'File Created by Process(es)' stripe:

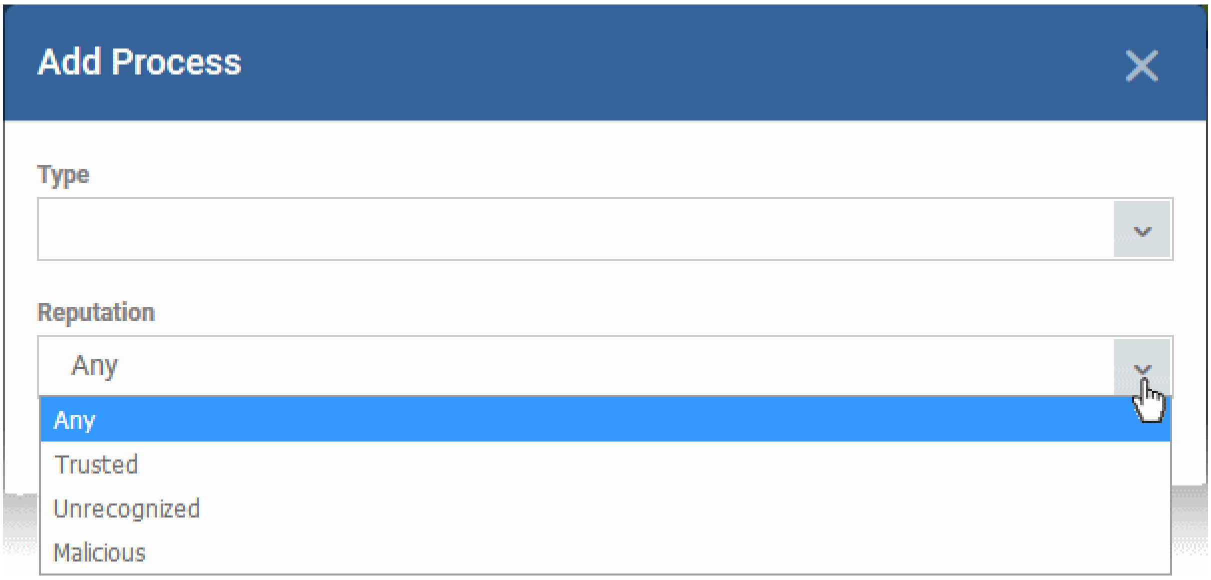


File Created by applications: Any

File Started by processes: Any

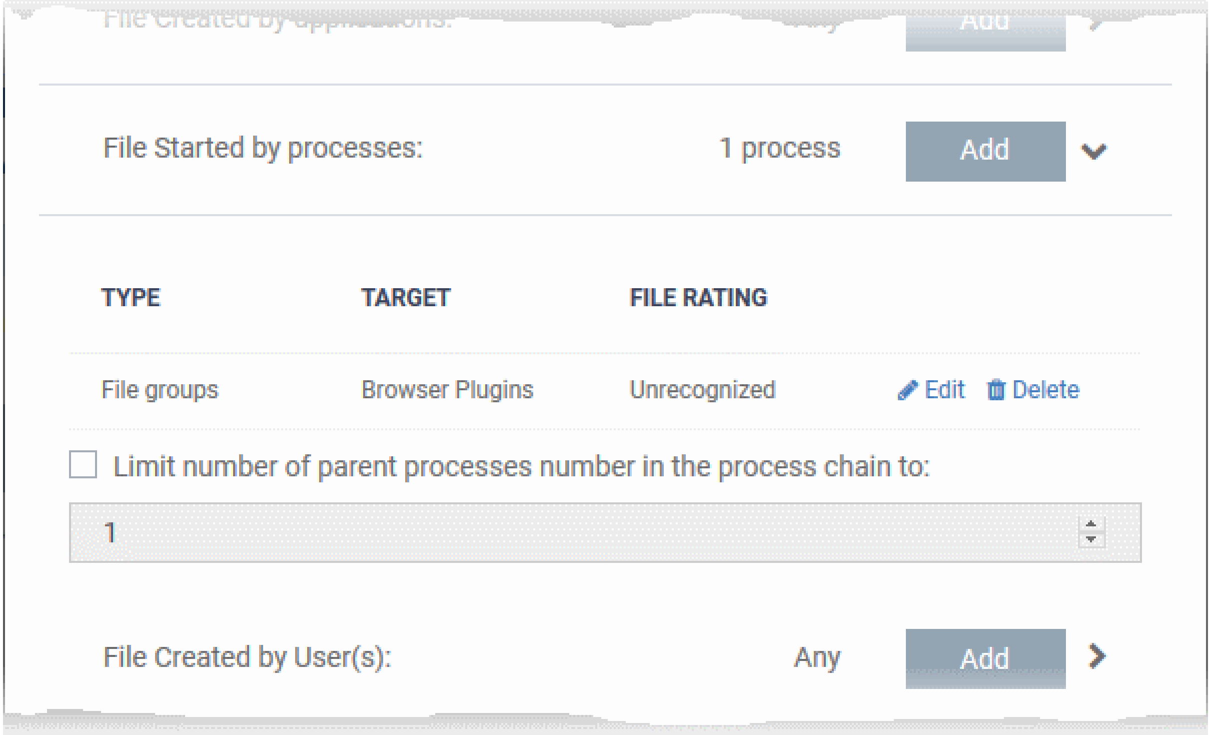
- **Type** - See target types above for more details.

- **Reputation** - Choose the file rating of the source you specified in the 'Type' drop-down:



- Click 'OK'

The source process type will be added.



File Created by applications: Any

File Started by processes: 1 process

TYPE	TARGET	FILE RATING	
File groups	Browser Plugins	Unrecognized	Edit Delete

□ Limit number of parent processes number in the process chain to:

1

File Created by User(s): Any

- **Limit number of parent processes in the process chain to**' - Specify how far up the process tree CCS should check when inspecting the file's sources. 1 = will only check the file's parent process. 2 = will check the parent process and the grand-parent process, etc.

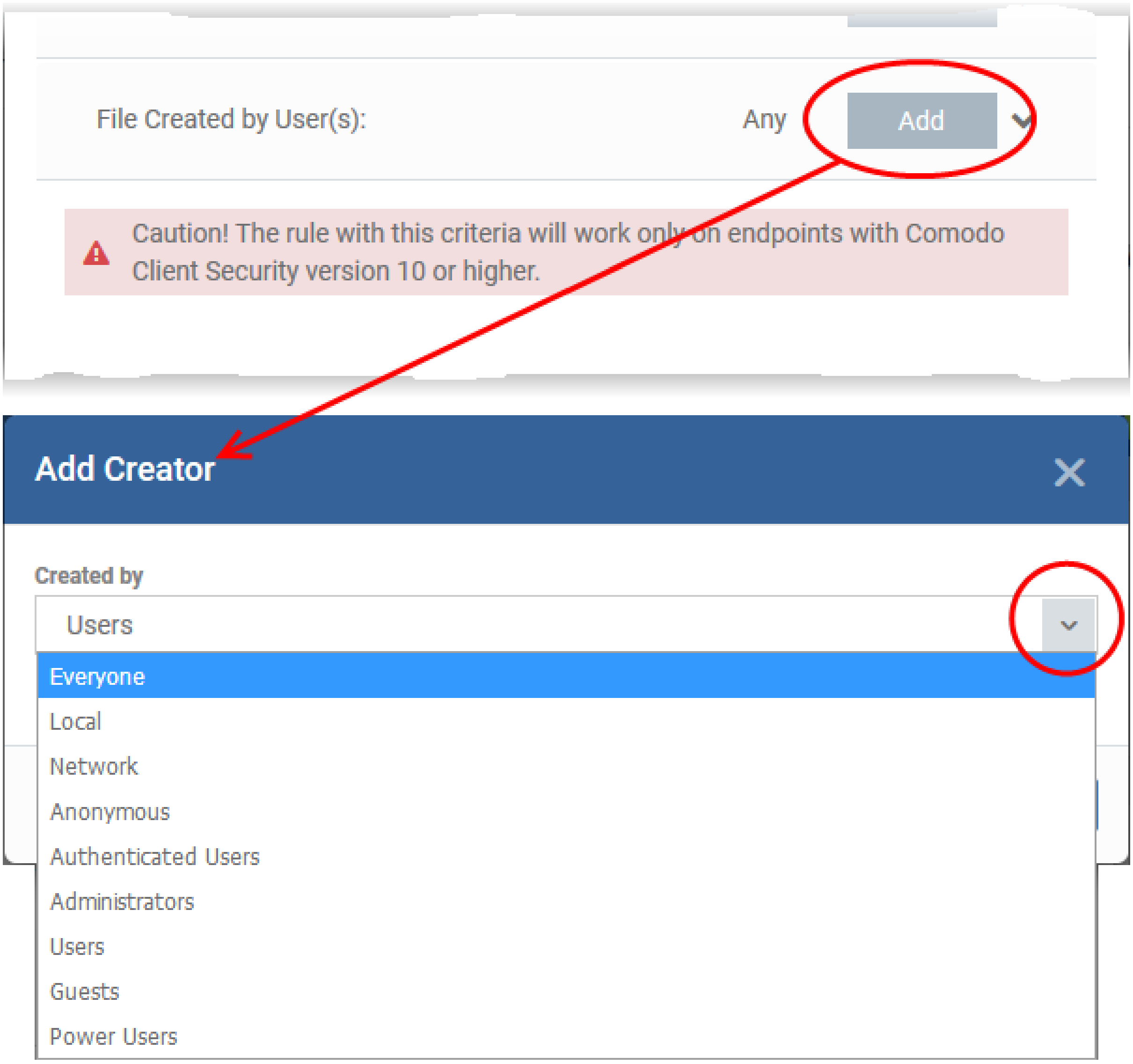
- Repeat to add more source processes

Files created by specific users

- Applies the rule to any files created by a certain user or user group.

- Click the 'Add' button in the 'File Created by User(s)' bar.

- Next, select the target user group:

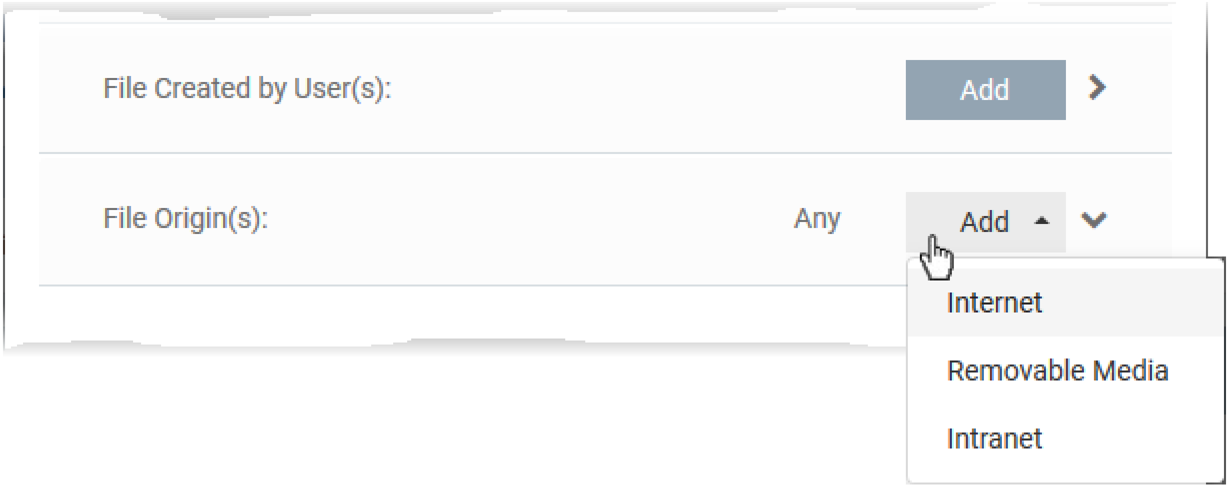


Caution! The rule with this criteria will work only on endpoints with Comodo Client Security version 10 or higher.

- Repeat the process to add more user groups

Files from specific sources

- Applies the rule to files that were copied/downloaded from certain locations.
- Click the 'Add' button in the 'File Origin(s)' bar.
- Choose the source from the options:

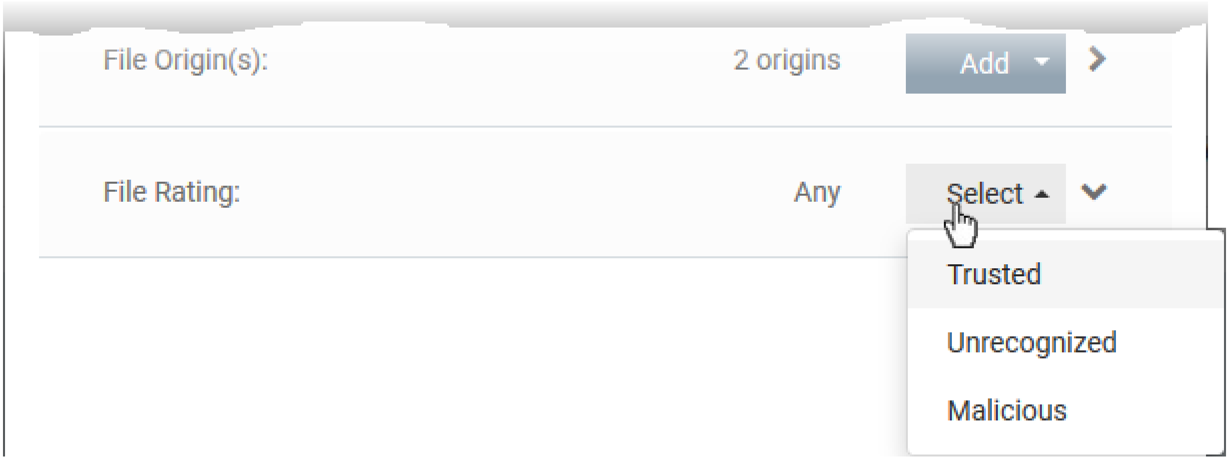


- **Internet** - The rule only applies to files downloaded from the internet.
- **Removable Media** - The rule only applies to items copied from external devices. For example, from a USB drive, CD/DVD, or external storage.
- **Intranet** - The rule only applies to items downloaded from the local network.

Repeat the process to add more sources

Files which have a specific trust rating

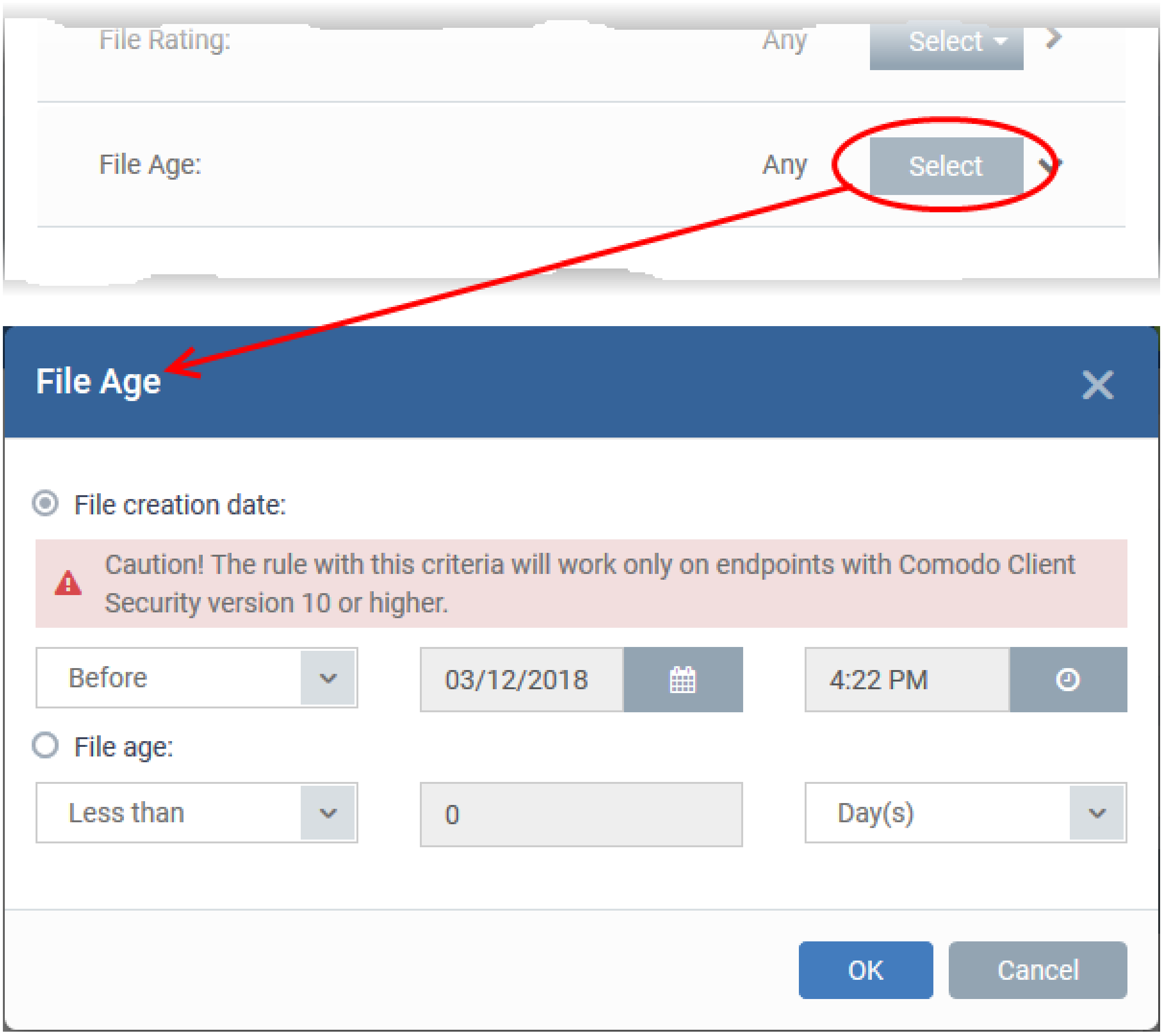
- Applies the rule to files that have the trust rating you set.
- Click the 'Select' button in the 'File Rating' stripe



- You can choose from the following trust ratings:
  - **Trusted** - Applications that are safe to run. A file is trusted if:
    - The file is on the global whitelist of safe files
    - The file is signed by a vendor with 'Trusted' rating in CCS vendor List
    - The file was installed by a trusted installer
    - The file was given a trusted rating by an admin ('Settings' > 'Application Control')
  - **Malicious** - Malware files. These files are on the blacklist of known harmful files.
  - **Unrecognized** - Files that do not have a current trust rating. These files are not on the blacklist nor the whitelist, so are given an 'unknown' trust rating.

Set the file age as filter criteria

- Applies the rule to files based on their created date, or their age.
- Click the 'Select' button in the 'File age' stripe.



File Rating: Any

File Age: Any

● File creation date:

Caution! The rule with this criteria will work only on endpoints with Comodo Client Security version 10 or higher.

Before | 03/12/2018 | 4:22 PM

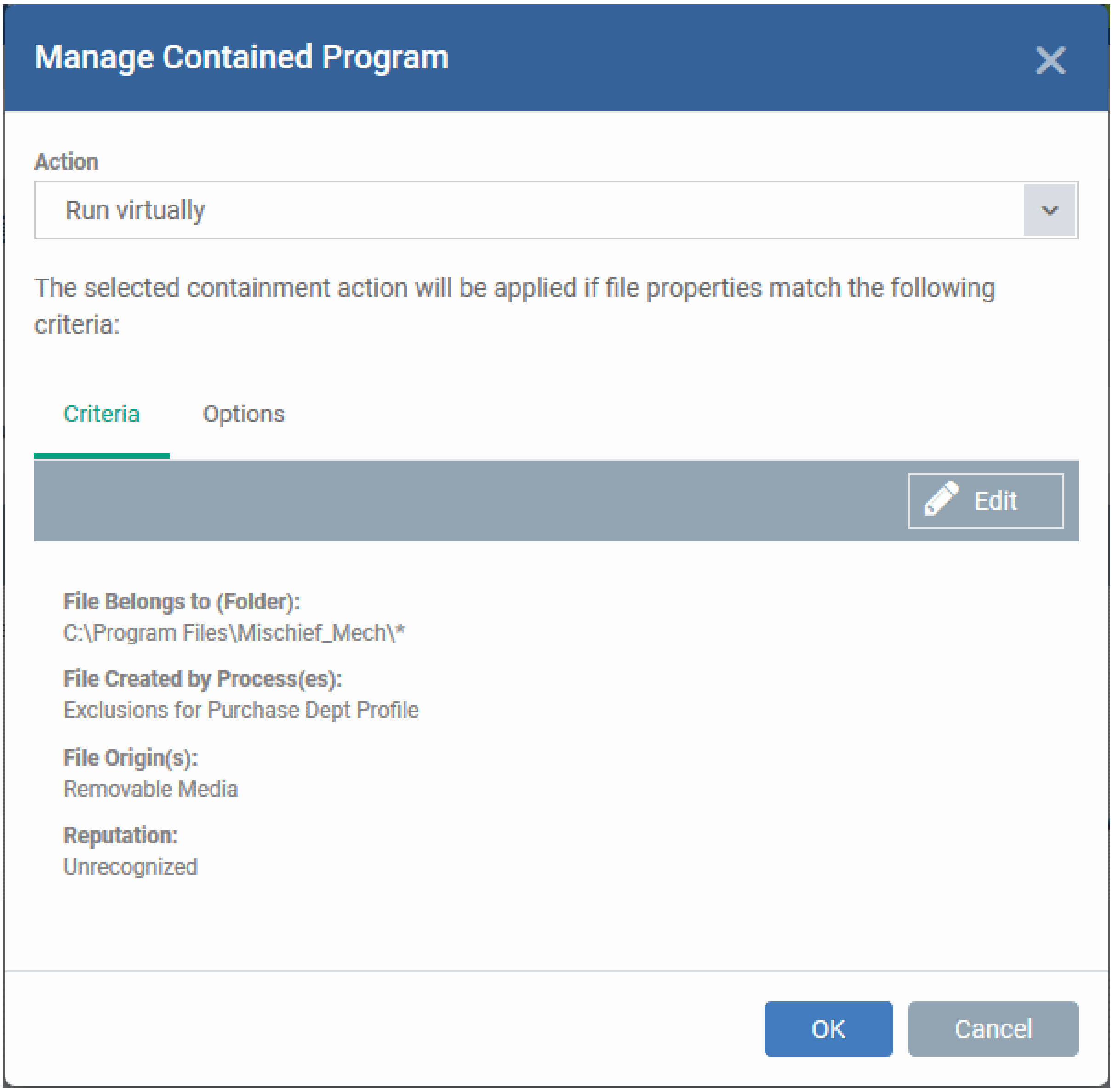
○ File age:

Less than | 0 | Day(s)

There are two ways to specify file age:

- **File Creation Date** - Apply the rule to files created before or after a certain date.
- **File age** - Apply the rule to files less than, or greater than, a certain number of days old.

Click 'OK' once you have selected your filters. All filters you added will be listed in the ‘Criteria’ tab:



The selected containment action will be applied if file properties match the following criteria:

File Belongs to (Folder):
C:\Program Files\Mischief_Mech\*

File Created by Process(es):
Exclusions for Purchase Dept Profile

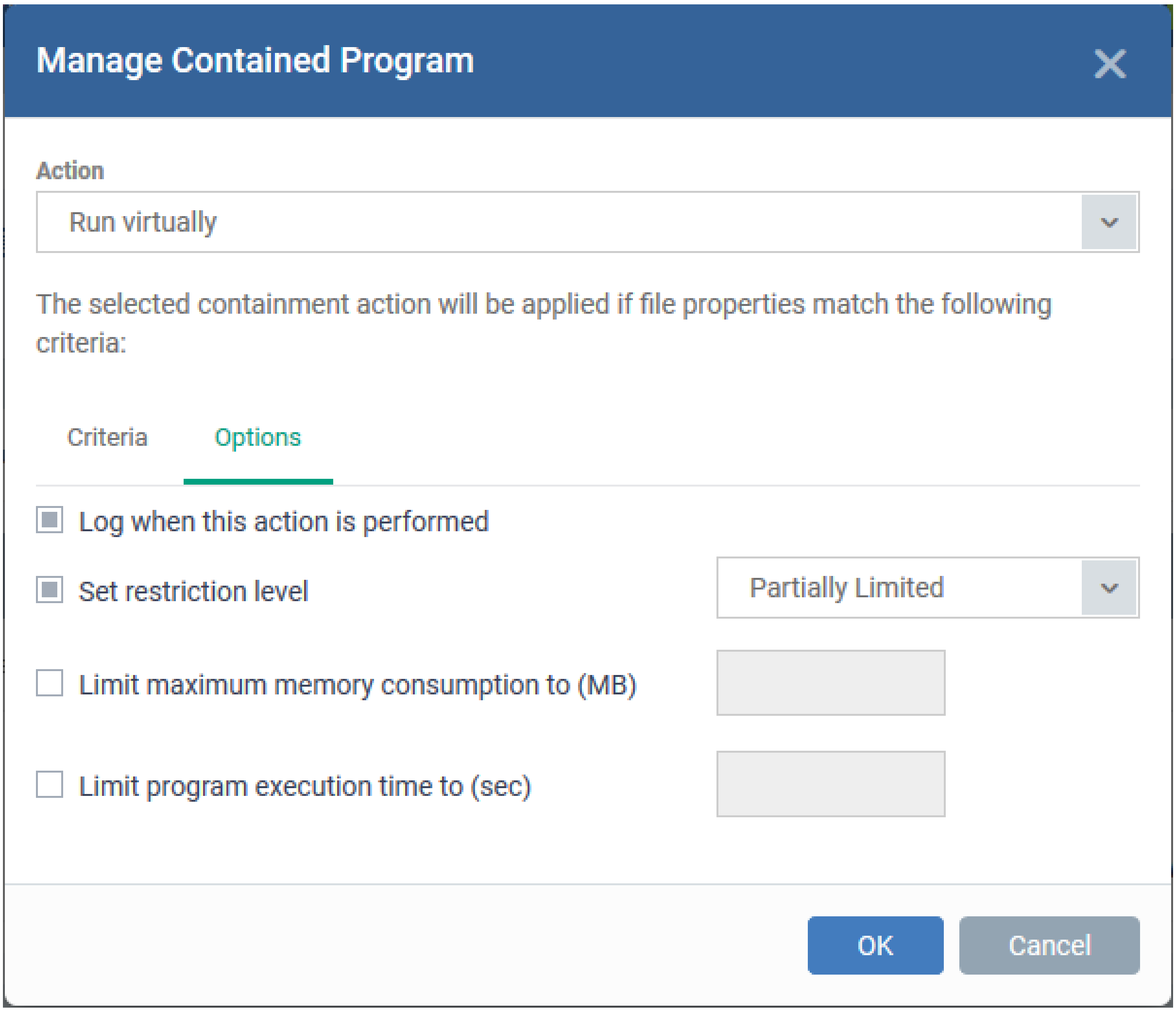
File Origin(s):
Removable Media

Reputation:
Unrecognized

Step 3 – Select the options

The next step is to choose additional options and restrictions on items contained by the rule.

- Click the 'Options' tab.



Manage Contained Program

Action: Run virtually

The selected containment action will be applied if file properties match the following criteria:

☑ Log when this action is performed

☑ Set restriction level: Partially Limited

□ Limit maximum memory consumption to (MB)

□ Limit program execution time to (sec)

The options available depend on the action chosen in step 1.

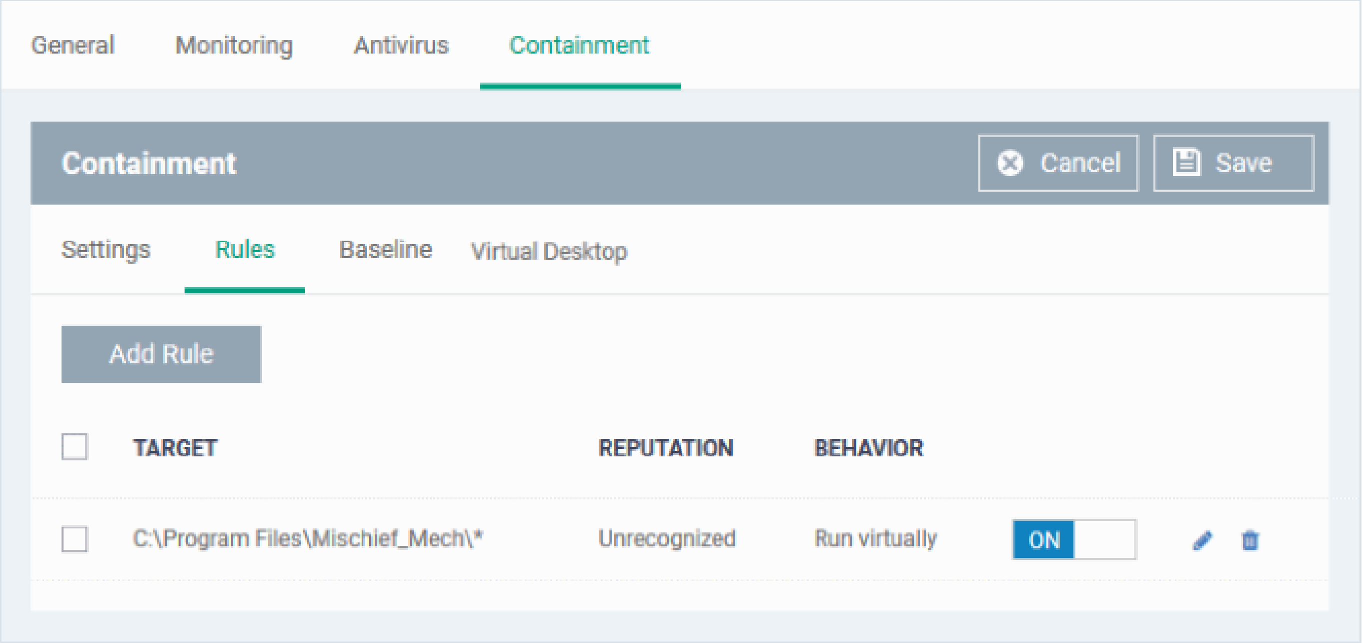
Here are the options for each action:

- **Ignore**:
    - **Log when this action is performed** - A CCS containment log is created whenever this rule is triggered.
    - **Don't apply the selected action to child processes** - Child processes are those started by the target application.
        - This option is disabled by default, so the ignore rule also applies to child processes.
        - If enabled, the ignore rule does not apply to child processes. Each child process will be inspected individually and all relevant rules applied.
- **Run Restricted** and **Run Virtually**:
    - **Log when this action is performed** – See above.
    - **Set Restriction Level** - The available restriction levels are:
        - **Partially Limited** - The application is allowed to access all operating system files and

resources like the clipboard. Modification of protected files/registry keys is not allowed. Privileged operations like loading drivers or debugging other applications are also not allowed.

    - **Limited** - The application can only access selected operating system resources. The application is not allowed to execute more than 10 processes at a time and is run without admin privileges.
    - **Restricted** - The application is allowed to access even fewer operating system resources than the ‘Limited’ option. The application is not allowed to execute more than 10 processes at a time. Some applications, like computer games, may not work properly under this setting.
    - **Untrusted** - The application is not allowed to access any operating system resources and cannot execute more than 10 processes at a time. Some applications that require user interaction may not work properly under this setting.
  - **Limit maximum memory consumption to** - Specify how much RAM the application can use.
  - **Limit program execution time to** - The maximum time the program can run. The program is terminated after the specified length of time.
- **Block**:
  - **Log when this action is performed** - See above.
  - **Quarantine program** - If checked, the blocked file will be automatically moved to quarantine on the device.
    - Quarantine is a secure holding area for potentially dangerous files. All quarantined files are encrypted, so they cannot run or cause harm to the computer.
    - Click 'Security Sub-Systems' > 'Antivirus' > 'Quarantined Files' to view and manage quarantined items.
    - See https://wiki.itarian.com/frontend/web/topic/how-to-manage-quarantined-items-in-endpoint-manager or more help with this.

Click 'OK' to save your rule. Use the ‘On/Off’ switch to activate or deactivate the rule:



□	TARGET	REPUTATION	BEHAVIOR		
□	C:\Program Files\Mischief_Mech\*	Unrecognized	Run virtually	ON	

- Repeat the process to add more rules
- You can drag-and-drop the rules to re-prioritize them. Rules at the top of the table have a higher priority than those underneath. The setting in the rule nearer the top will prevail in the event of a conflict between rules.
- You can edit or remove rules using the options at the right.