# How to use Reason RPV311 Web Interface after Flash Player endof-life

#### **VERSION CONTROL**

Version	Reason for change	Date
01	Initial	22-dec-2020
02	Changes in the procedure after plugin block based on date (12 Jan 2021)	20-jan-2021
03	Removed references for not required specific browser versions and removed section Running Conftool	23-feb-2021
04	Removed link for the latest Flash Player version, added info about plugin on Internet Explorer and updated the Advanced Flash Player configuration	16-mar-2021



## Summary

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#### **1. INTRODUCTION**

This application note presents how to continue using the Reason RPV311 Web Interface (online and Conftool) after the Flash Player end-of-life (EOL) by December 31, 2020 as announced by Adobe.

"Adobe will block Flash content from running in Flash Player beginning January 12, 2021 and the major browser vendors will continue to disable Flash Player from running after the EOL Date. Flash Player may remain on the user's system unless the user uninstalls it."

These actions affected all customers who had the latest Flash Player Plugin regardless the browser version, therefore this procedure is recommended to properly access RPV311 Web Interface and the Conftool software after Flash Player obsolescence.

This application note was made to target Windows 7 and 10, both 64bits. For other operational systems please contact our support team through the e-mail ga.support@ge.com



#### 2. PROCEDURES TO CONFIGURE FLASH PLAYER IN WINDOWS 7 AND 10

For accessing RPV311 Web interface it is a pre-requirement to have the Flash Player plugin installed. For these instructions, the following versions were considered:

- Adobe Flash Player 32 NPAPI 32.0.0.465 → Used with Firefox;
- Adobe Flash Player 32 ActiveX 32.0.0.465 → Used with Internet Explorer

#### 2.1. Configuring Flash Player to allow access to the devices and ConfTool

After Flash Player version 32.0 several policies and behaviors were made configurable to the user specially to prepare enterprises to Flash Player EOL. With these new configuration options administrators can configure security policies and allow Flash Plugins to run trusted paths, as the ones needed to operate RPV311 Web configuration, RPV311 web monitoring tools and ConfTool.

To configure these new behaviors, it is necessary to **use administrator permissions** to edit the "*mms.cfg*" file located in the system path of your Flash Player installation, as in the example below.

lame	Date modified	Туре	Size
activez	05/10/2020 21-13	VCH File	750 KF
S Flash.ocx	05/10/2020 21:13	ActiveX control	22.339 KE
FlashInstall32	15/01/2021 15:42	Text Document	16 KE
flashplayer.xpt	15/01/2021 15:42	XPT File	1 KE
FlashPlayerPlugin_32_0_0_465	15/01/2021 15:42	Application	3.374 Ki
🐺 FlashPlayerUpdateService	15/01/2021 15:42	Application	328 KI
FlashUtil_ActiveX.dll	05/10/2020 21:13	:13 Application exten	
FlashUtil_ActiveX	05/10/2020 21:13	Application	1.464 Ki
FlashUtil32_32_0_0_465_Plugin.dll	15/01/2021 15:42	Application exten	586 KI
FlashUtil32_32_0_0_465_Plugin	15/01/2021 15:42	Application	1.470 KE
a mms	19/01/2021 12:00	CFG File	1 KI
NPSWF32_32_0_0_465.dll	15/01/2021 15:42	Application exten	19.927 Ki
🔹 plugin	15/01/2021 15:42	VCH File	554 Ki

Figure 1 – Example path for mms.cfg flash player configuration file.

We recommend making a backup of the file "C:\Windows\SysWOW64\Macromed\Flash\mms.cfg". In Windows 32bit this file must be saved in "C:\Windows\System32\Macromed\Flash".

Open the "mms.cfg" file and add new lines for each of the following configuration:

- *AutoUpdateDisable=1-* This shall disable Flash Plugin auto updates, which can implement other operational blocks to RPV311 web functions.
- EOLUninstallDisable=1- Disable uninstall due to EOL.



• *AllowListRootMovieOnly=1*- Apply policies to all flash movies based on the policy configured to the main movie.

To allow ConfTool add the following line:

• *AllowListUrlPattern=file:///C:/-* Allow ConfTool plugin to run independently of where it is installed on C drive.

To access, monitor and configure devices directly you must add a new line with a configuration **for each IP address** according to the following example:

 AllowListUrlPattern=\*://10.7.77.27/- The wildcard \* enables all needed protocols to RPV311 and "10.7.77.27" is an IP address example that you need to substitute for the ones you want to enable access.

In the end your configuration file shall be similar to the picture below.

```
# Update options
     AutoUpdateDisable=1
3
    EOLUninstallDisable=1
4
    SilentAutoUpdateEnable=0
6
    #Generic policies configuration
7
    AllowListRootMovieOnly=1
8
9
     # Below line shall enable ConfTool
    AllowListUrlPattern=file:///C:/
11
     # Below lines shall be added to all devices you want to access in your installation
    # In this case we are enabling device on the ip 10.7.77.27, 192.168.0.199 and 192.168.1.199
13
    AllowListUrlPattern=*://10.7.77.27/
14
15
    AllowListUrlPattern=*://192.168.0.199/
16
     AllowListUrlPattern=*://192.168.1.199/
17
```

Figure 2 - Example mms.cfg file

#### This change requires browser to be restarted.

A full documentation with all configuration options and further clarification can be found here: <a href="https://www.adobe.com/content/dam/acom/en/devnet/flashplayer/articles/flash\_player\_admin\_guide/pdf/latest/flash\_player\_32\_0\_admin\_guide.pdf">https://www.adobe.com/content/dam/acom/en/devnet/flashplayer/articles/flash\_player\_admin\_guide/pdf/latest/flash\_player\_32\_0\_admin\_guide.pdf</a>.

#### 3. ADVANCED FLASH PLAYER CONFIGURATIONS

After the end-of-life date of the Flash Player it will not possible to make configuration through the website (http://www.macromedia.com/support/documentation/en/flashplayer/help/settings\_manager03.html).



This configuration is saved in the **.sol** file (Flash Shared Object) located in the hard disk. To edit this file please use a ".sol" editor. One alternative may be the Sol editor published as Mozilla Public License 1.1 (MPL 1.1).

- 1. Close the all browser window opened.
- Make backup of the file "C:\Users\[YOUR USERNAME]\AppData\Roaming\Macromedia\FlashPlayer\macromedia.com\support\flashplayer \sys\settings.sol". The "AppData" is a hidden folder. Ensure to enable Windows Explorer to show hidden items or
  - a. Open the Windows Explorer.
  - b. Type %appdata% into the address bar and hit enter.
  - c. Navigate to the "Macromedia\FlashPlayer\macromedia.com\support\flashplayer\sys" folder.
- Open the file "C:\Users\[YOUR USERNAME]\AppData\Roaming\Macromedia\FlashPlayer\macromedia.com\support\flashplayer \sys\settings.sol" using a Sol editor.
- 4. Search the "defaultklimit" option and change the value to -2. This value corresponds to "unlimited".



🕲 Sol Editor			×
File View Help			
- 🖢 safefullscreen 🧄 🕅 Number 🚦 Boolean 🖪 String 😵 Object 😢 null 😢 undefined 🏵 Array	∃ XML 🛄 Date	🔀 Pointer	
- 📾 lastTimePlayed	1 1		 
uciLastPingTime Name :			
B uciMacPPAPIVersion defaultklimit			
uciSWEnable			
B HUWlastHayerLrrorHugn			
windowiessursable Value :			
autol IndateDisabled			
B uciHash			
B uciOODTitle			
defaultalways			
-B uciAXWin8Version			
- B uci00DUrl			
B defaultaudio			
echosupression			
allowThirdPartyLSDAcces:			
C:\BPV			
······Bi uci00DAlert			
- B uci00DWam			
B uciSWLocale			
- 🔂 domains			
R undvindeption			
- B uciSWBlockMsa			
B uciStateCode			
- B defaultcamera			
- 🖩 autoUpdateLastCheck			
- 🕅 gain			
- I authorizedFeaturesExpiry			
B uckWnPtAptVersion			
C:\Users\212523805\AppData\Roaming\Macromedia\Flash Player\macromedia.com\support\flashplayer\sys\settings.sol reloaded			

Figure 3 - Sol Editor to configure the amount of disk space allowed for Flash Player

Examples:

- -1 -> None
- -2 -> Unlimited
- 100 -> 100 KB
- 10240 -> 10 MB
- Search the option "trustedPaths" and add value "C:\RPV" e/ou C:\Reason DR Manager if they do not exist yet.









#### Figure 5 - Sol Editor for Trusted Paths

- 6. Check the local storage settings from the "#local" folder
  - a. The website "local" must be configured as "Allow" for the "When the selected site wants to use local storage" option:



		90.				
Storage	Camera and Mic	Playback	Jpdates	Advance	ed	
Local St	orage Settings —					
Local st of Flash prefere	orage may be used Player, such as vi nces, or data that	d by websites ewing history identifies this	to save , game p compute	data abou rogress, s r.	ut this computer's saved work,	use
<u>Learn m</u>	nore about privacy	<u>controls</u>				
Allo	w sites to save inf	ormation on t	his comp	uter		
⊖ Ask	me before allowin	g new sites t	o save inf	formation	on this computer	
	ck all sites from sto	ring informat	ion on thi	s compute	er	
Local	Storage Settings b	oy Site	Delete	All		
Local Sto	orage Settings by	Site				×
block the settings	e use of local stora and data for that	ige by specifi site in Flash F	c sites. R layer.	emove a	site to delete all	
Websi	ite		Storag	je Used	Storage Access	
Websi 10.7.3	ite 77.27		Storag	je Used 0 bytes	Storage Access Allow	
Websi 10.7.3 local	ite 77.27		Storag	je Used 0 bytes 948 kB	Storage Access Allow Allow	
Websi 10.7. local	ite 77.27		Storag	je Used 0 bytes 948 kB	Storage Access Allow Allow	
Websi 10.7. local	ite 77.27		Storag	je Used 0 bytes 948 kB	Storage Access Allow Allow	
Websi 10.7. local	ite 77.27		Storag	je Used 0 bytes 948 kB	Storage Access Allow Allow	
Websi 10.7.3 local	ite 77.27		Storag	je Used 0 bytes 948 kB	Storage Access Allow Allow	
Websi 10.7.7 local	ite 77.27 ne selected site wa	nts to use loc	Storag	e Used 0 bytes 948 kB	Storage Access Allow Allow	
Websi 10.7. local When the	ite 77.27 ne selected site wa	nts to use loo	Storag	e Used 0 bytes 948 kB	Storage Access Allow Allow	

Figure 6 - Local Storage Settings by site

b. Make backup of the file "C:\Users\[YOUR

**USERNAME**]\AppData\Roaming\Macromedia\FlashPlayer\macromedia.com\support\fla shplayer\sys\**#local\settings.sol**".

- c. Open the "...\#local\settings.sol" file using a Sol editor.
- d. Search the "defaultklimit" option and change the value to the same value configured on the Figure 3.

#### 4. CYBERSECURITY DISCLAIMER

Considering the RPV311 is designed to be installed and operated in industrial and power substation environment, in applications where it is not needed access to public networks, GE recommend RPV311 devices to be protected using network defense-in-depth practices. This includes, but is not limited to,



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placing RPV311 devices inside the control system network security perimeter, and having access controls, monitoring (such as an Intrusion Detection System), and other mitigating technologies in place.

#### 5. BROWSER COMPATIBILITY

This procedure focus on Flash Player plugin EOL and RPV311 compatibility, that is identifiable if standard Flash Player image as shown in Figure 7 is presented.



Figure 7 - Image related to Flash Player EOL block.

If you are experiencing other issues with RPV311 Web Interface or ConfTool, it might be related to browser compatibility, which in this case it is suggested to contact our support team through the e-mail ga.support@ge.com.



#### 6. REFERENCES

- Adobe Flash Player EOL General Information Page https://www.adobe.com/br/products/flashplayer/end-of-life.html
- Adobe Flash Player 32.0 Administration Guide
   <u>https://www.adobe.com/content/dam/acom/en/devnet/flashplayer/articles/flash\_player\_admin\_guide/pdf/latest/flash\_player\_32\_0\_admin\_guide.pdf</u>
- ✓ SOL Editor 1.1 installer: https://sourceforge.net/projects/soleditor/

