How to create a plugin (Only for ESIA Infinity)

If you have chosen the ESIA Infinity solution, you can develop your own plugins and add them to Esia!

Development

Prerequisites

The plugin must be a file that can be executed by the server. It can therefore be coded in PHP, Perl, Python, … And use independent libraries for these languages. Provided that these languages and libraries are installed on the server.

The plugin must **always** return one of the following statuses in numerical form :

Service status	Numeric value
OK	0
Warning	1
Critical	2
Unknown	3

Output message

The result of the **stdout** of the plugin will be displayed in the ⇒ Service status interface.

Example for the check_icmp plugin.

On the command line on the esia server:

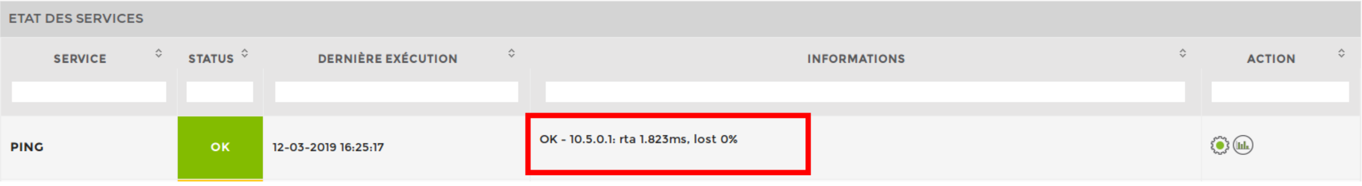
copy

```
/usr/local/esia/plugins# ./check_icmp -H 10.5.0.1 -w 200,50% -c
500,100%
```

The result will be :

```
OK - 10.5.0.1: rta 1.837ms, lost 0%
```

Will display in the web interface :



ETAT DES SERVICES

SERVICE	STATUS	DERNIÈRE EXÉCUTION	INFORMATIONS	ACTION
PING	OK	12-03-2019 16:25:17	OK - 10.5.0.1: rta 1.823ms, lost 0%	

To create a stdout, in PHP for example, you just need to do a :

copy

```
echo "mon message de sortie";
```

Don't forget to return the status in numerical form:

copy

```
exit(0);
```

Check out how the other plugins are built!

On your Esia server in the directory `/usr/local/esia/plugins/`

Plugin nomenclature

In Esia, the names of plugins are always in capital letters and the words separated by underscores. Make sure you give your plugins clear, explicit names so that you know what they do just by reading their name.

Use the following format: <type de plugin>_<protocole>_<plateforme>_<élément testé>

Plugin type	Description
GESA	For plugins that go through a Unity to find the information they are looking for (ESIA Unity)
CHECK	For plugins that directly query a node (mainly ESIA Infinity).
TRAP	For plugins that use SNMP Trap.
MAN	For Management plugins.
CORR	For correlation plugins. These are plugins that work on the results of other plugins.

Examples:

GESA_SNMP_WINDOWS_STORAGE

- GESA: Tests via the Unity box.
- SNMP: uses the SNMP protocol.
- WINDOWS: for all Windows OS.
- STORAGE: tests the storage space used on a drive.

CHECK_HTTPS

- CHECK: Tests directly from the server.
- HTTPS: if an HTTPS server is present

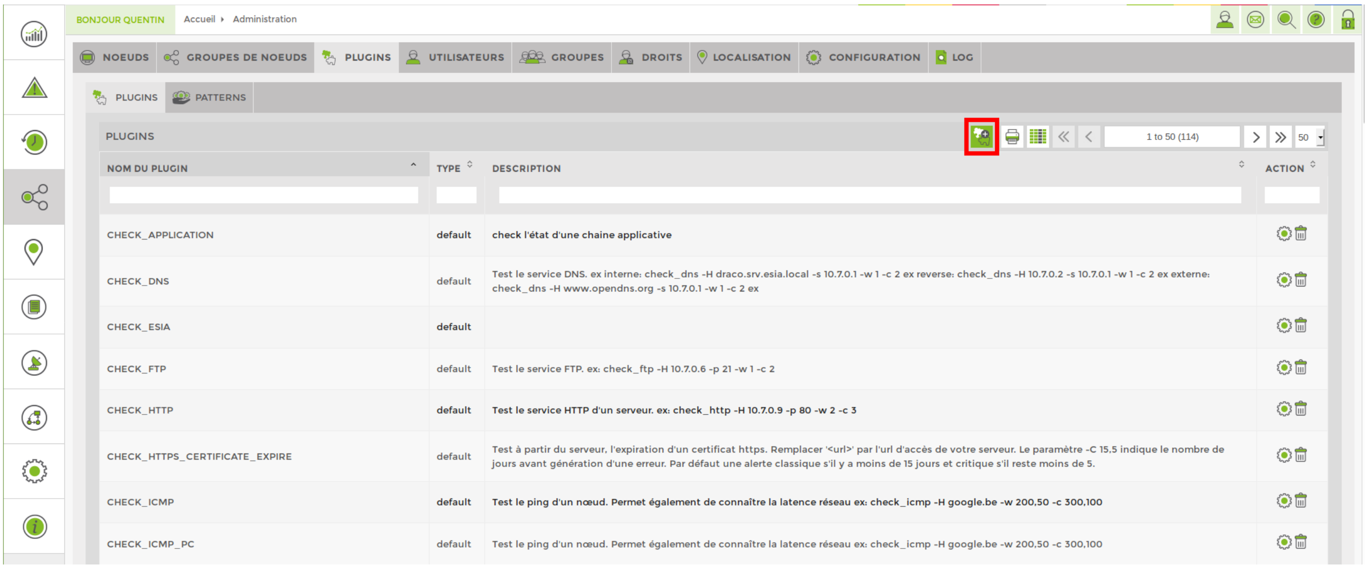
It's important that you follow these rules when you add a new plugin to keep things

consistent.

Adding a plugin to the Esia interface

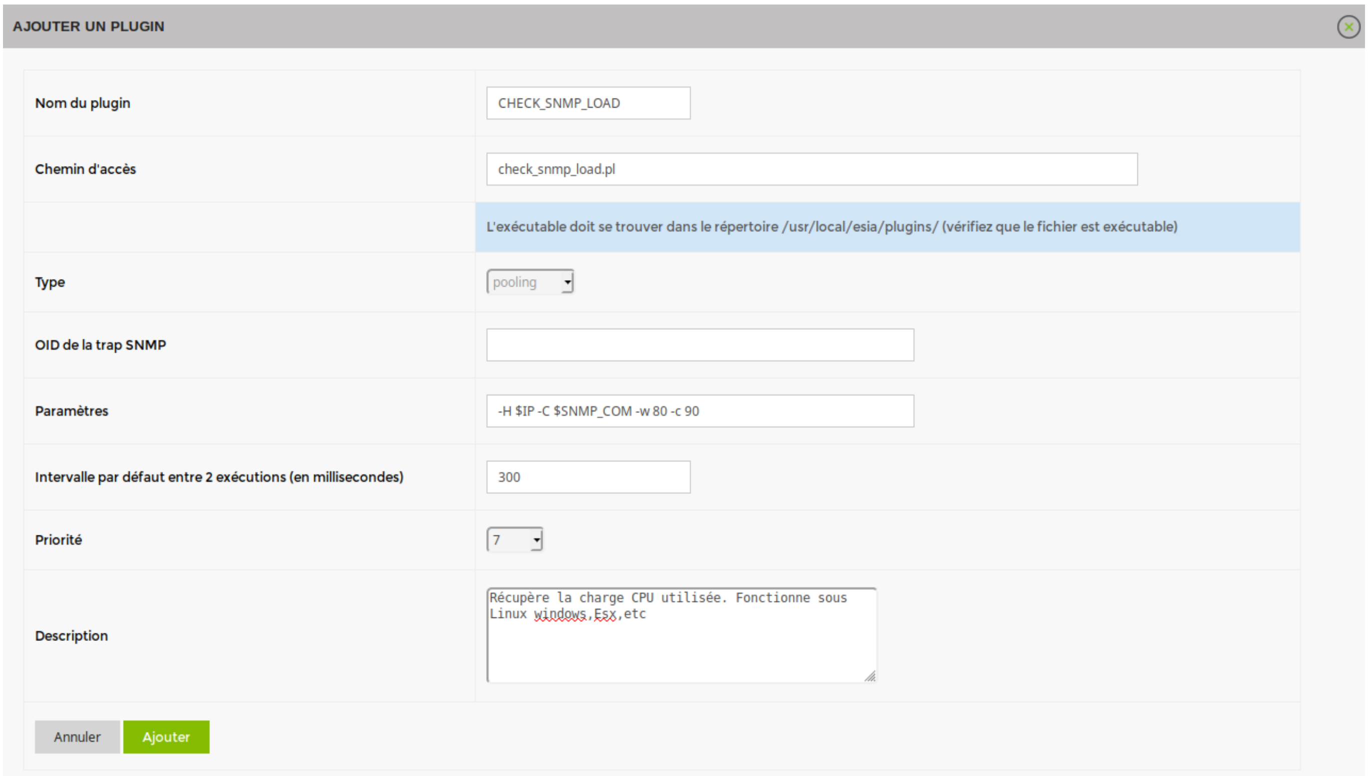
First, copy the executable of your plugin to the Esia server in the directory `/usr/local/esia/plugins/` (Check that the file has execution rights **X**)

On the web interface, go to the menu « Administration ». Go to « Plugins » then click on the at the top right.



NOM DU PLUGIN	TYPE	DESCRIPTION	ACTION
CHECK_APPLICATION	default	check l'état d'une chaine applicative	
CHECK_DNS	default	Test le service DNS. ex interne: check_dns -H draco.srv.esia.local -s 10.7.0.1 -w 1 -c 2 ex reverse: check_dns -H 10.7.0.2 -s 10.7.0.1 -w 1 -c 2 ex externe: check_dns -H www.opendns.org -s 10.7.0.1 -w 1 -c 2 ex	
CHECK_ESIA	default		
CHECK_FTP	default	Test le service FTP. ex: check_ftp -H 10.7.0.6 -p 21 -w 1 -c 2	
CHECK_HTTP	default	Test le service HTTP d'un serveur. ex: check_http -H 10.7.0.9 -p 80 -w 2 -c 3	
CHECK_HTTPS_CERTIFICATE_EXPIRE	default	Test à partir du serveur, l'expiration d'un certificat https. Remplacer '<url>' par l'url d'accès de votre serveur. Le paramètre -C 15,5 indique le nombre de jours avant génération d'une erreur. Par défaut une alerte classique s'il y a moins de 15 jours et critique s'il reste moins de 5.	
CHECK_ICMP	default	Test le ping d'un nœud. Permet également de connaître la latence réseau ex: check_icmp -H google.be -w 200,50 -c 300,100	
CHECK_ICMP_PC	default	Test le ping d'un nœud. Permet également de connaître la latence réseau ex: check_icmp -H google.be -w 200,50 -c 300,100	

This will open a new window.



AJOUTER UN PLUGIN

Nom du plugin	CHECK_SNMP_LOAD
Chemin d'accès	check_snmp_load.pl
	L'exécutable doit se trouver dans le répertoire /usr/local/esia/plugins/ (vérifiez que le fichier est exécutable)
Type	pooling
OID de la trap SNMP	
Paramètres	-H $IP -C $SNMP_COM -w 80 -c 90
Intervalle par défaut entre 2 exécutions (en millisecondes)	300
Priorité	7
Description	Récupère la charge CPU utilisée. Fonctionne sous Linux windows,Esx,etc

Configure the new plugin:

- **Plugin name**The name it will have in the interface. Plugin Nomenclature)

- **Access path**The path and name of the executable file from the directory on the server `/usr/local/esia/plugins/` (Check that the file has execution rights **X**).

  ExampleOn the image above, our executable `check_snmp_load.pl` is located at the root of the `/usr/local/esia/plugins/`

- ~~**Type**~~: *This option will be implemented in the future*.

- ~~**SNMP trap OID**~~: *This option will be implemented in the future*.

- **Settings***: Here you can configure the default options to be passed to the plugin.

- **Interval***: Default time between plugin executions in milliseconds (300 = 5 minutes).

- **Priority*** Choose a default priority for the test (See Adding services => Priority of services).

- **Description**What this plugin does.

* Parameters, Interval and Priority are default values. They can be modified on a case-by-case basis for each node if necessary.

Don't forget to click on “Add” at the bottom left to save the plugin.