

Project nginx

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nginx is a http webserver that supports techniques like load balancing, ssl, and reverse proxying. We want to simplify the process of installing nginx, building the configuration and setting up your templates, to get you started quickly. For this reason, we provide you with more than 10 actions that automate these processes for you.

General Information

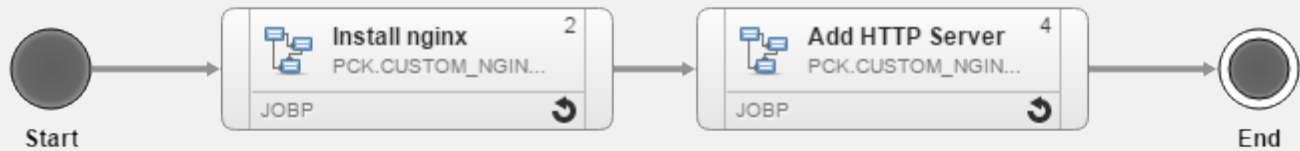
Install nginx

Windows: This action simply attaches the nginx.zip and a unzip.exe to the specified Path and extract it there by executing unzip.

Unix: This action simply executes apt-get command to install the latest version of nginx

After that the action will add a new Instance to our Variable-Object that you can use this instance later on.

If you enter a Path that does not exist this action will create it. You can use this Action if you want to install a clean Version of Nginx on your Agent.



Add existing installation

It's required to use this action if you already have an existing nginx folder on your system. This action binds the path of your current nginx directory to the user object, which gets stored in a vara object, in the automic engine, because in following actions we prompt the user object and not the actual path.

As you can see down below, it is always required to use the action [Add existing Installation](#) if you want to use your own nginx folder.

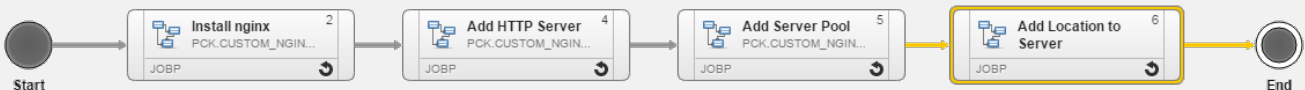


Published Variables

There are some acitons which pubish a Variable that you can use in the following actions by entering this variables into the promptset.

Install Action	&PATH_KEY#
Add Http Server	&HTTP_KEY#
Add Htps Server	&HTTPS_KEY#
Add Server Pool	&POOL_KEY#

For Example.: You want to install a new Version of Nginx and add a load balancing Server to your Configuration.



Prompts

Configure Location

#	Server	&HTTP_KEY#
	URL	/pics
#	Proxy Pass	&POOL_KEY#

Copy Content

This action requires you to upload your content folder, which is already zipped, into a stored object so we can move it to your nginx folder.

Add Row

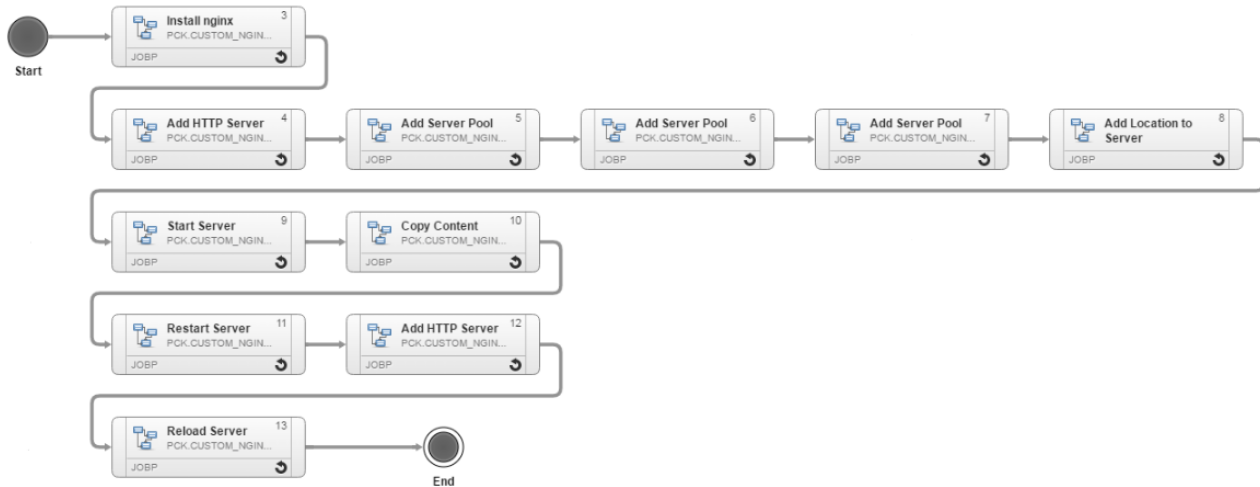
Remove

<div><div></div><div>Name</div></div>	File Upload	Type	Version	Operating System	Platform	Hardware
<div><div></div><div>STORE</div></div>	store.zip	Binary	1.0	WINDOWS	*	*
<div><div></div></div>						

Example Workflows

You just created your own website and want other people to see it? For this reason you need a webserver and you decide to use nginx. But since you do not want to mess around with the configuration file, you decide to use our action pack.

Needed: Store Object with zip folder where the root directories are located in.

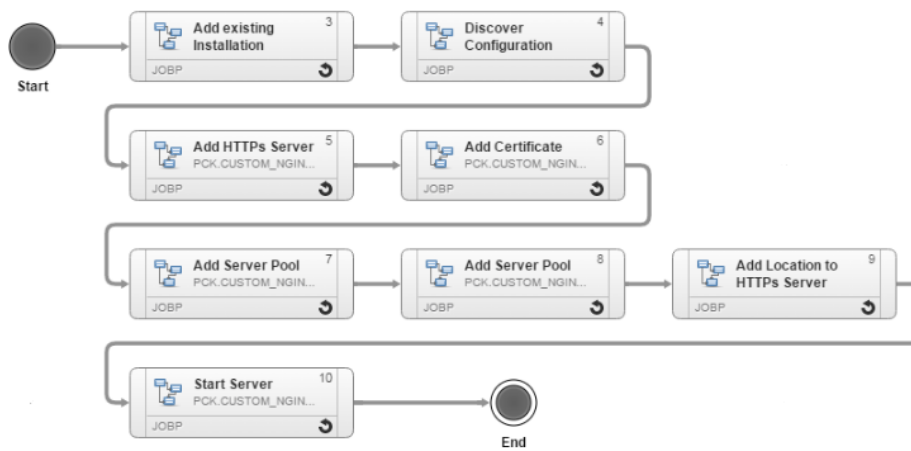


This Workflow will

- install nginx on the given path
- add a http server with the specifications in the promptset
- add 3 server to a server pool
- add a location to the http server and pass all requests to the server pool
- start the server with its configuration
- add content folders in the zip file into the nginx installation
- restart the nginx server to update the content folders
- add http server with to root folder from the zip
- reload the configuration

So you already have a working nginx server but want to automate some of its processes? Since you want to add an online store to your website, which requires a https connection, because the site is getting more attention than you expected.

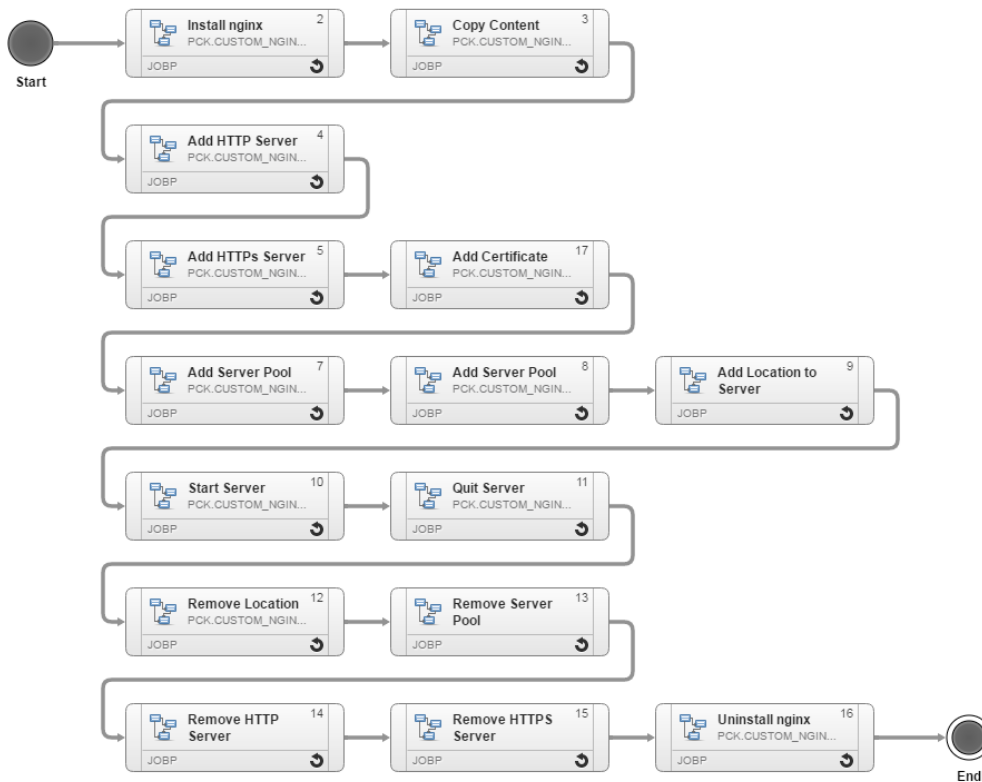
Needed: Store object with the certificate and the certificate key



This Workflow will

- add the existing installation into automatic
- parse all important config entities into automatic
- add a HTTPS Server to the config
- add a certificate to the https server in the config
- add a second server to the server
- add a location to the https Server and pass all requests to the server pool
- start the server with its configuration

Actions



Action	
Install nginx	Install the latest ningx version on the agent
Add existing Installation	If you already have nginx installed, use this action to set everything up for AAE
Discover Configuration	Use this action to sync your nginx configuration file with our server.
Copy Content	Copy your content files into the nginx folder.
Add HTTP Server to Config	Add a virtual HTTP Server to the nginx configuration file.
Add HTTPs Server to Config	Add a virtual HTTPs Server to the nginx configuration file.
Add Certificate	Add your certificate and key to an existing https server
Add Server Pool	Add a load balancing pool to the nginx configuration file.
Add Location	Configure how the requests to a specific url are handled by the server.
Remove Server Pool	Remove a load balancing pool from the nginx configuration file.
Remove Location	Remove a url from a server in the nginx configuration file.
Remove HTTP Server	Remove a virtual HTTP Server from the nginx configuration file.
Remove HTTPs Server	Remove a virtual HTTPs Server from the nginx configuration file.
Remove Server from Pool	Remove a virtual Server from a Server Pool.
Quit / Stop / Start Server	Start / Stop / Quit or Reload the Server.
Uninstall nginx	Remove the nginx client from your agent.








Install nginx

PROMPTSET		Linux	Windows
Installation-Name	In the following Actions you are able to select the Installation by entering the Installation-Name.	Required	Required
Installation-Path	The nginx folder will be attached to the given directory.	Not Required	Required
Store-Object	The store object where your nginx zip file is stored.	Not Required	Required

Variable-Name	Description
&PATH_KEY#	Use this variable in the following actions where the Installation is required e.g. Add HTTP Server , Add Location .

This action installs the latest distribution version of nginx on debian linux systems. If you want to install nginx on windows you have to [download nginx](#) and upload it into a stored object.

Now your nginx folder structure should look something like this

 conf	14.07.2016 09:28	File folder	
 contrib	08.07.2016 10:31	File folder	
 docs	08.07.2016 10:31	File folder	
 html	08.07.2016 10:31	File folder	
 logs	14.07.2016 10:02	File folder	
 temp	14.07.2016 08:39	File folder	
 nginx.exe	05.07.2016 17:31	Application	2 856 KB



Note

If the directory you specified does not exist, it will be created.



Warning

Make sure you have write permissions for the specified directory, otherwise the nginx folder can not be moved



Warning

On windows make sure that the zip file is called **nginx.zip** and the folder contained in the zip file is called **nginx**

Add existing Installation

PROMPTSET		
Installation-Name	In the following Actions you are able to select the installation by entering the Installation-Name	Required
Installation-Path	The nginx folder will be attached to the given directory	Required

Variable-Name	Description
&PATH_KEY#	Use this variable in the following actions where the Installation is required e.g. Add HTTP Server , Add Location

The action allows you to use your own installation in further actions.

You can use this action if you already installed Nginx and you want to configure it with Automic.

This action simply adds a new instance into our Variable-Object where we save the locations of the nginx installation.

Discover Configuration

PROMPTSET		
Path	The path to your nginx folder.	Required

Use this action when you have your own nginx configuration file and want to use it with our product. If you installed your nginx client with our action [Install nginx](#), just replace the existing config file with yours.

If you have your own nginx client already, make sure you first use our action [Add existing Installation](#) to sync the folder with our server. Then just simply run this action and all your entities, from the configuration file, will be selectable in a dropdown menu.



Note

An entity is basically every object in your configuration file like **http servers**, **https server** and **upstreams**.

```
worker_processes auto;

events {
    worker_connections 1024;
}

http {
    server{
        server_name ssl_srv;
        ssl_protocols TLSv1 TLSv1.1 TLSv1.2;
        ssl_ciphers "EECDH+AESGCM:EDH+AESGCM:ECDHE-RSA-AES128-GCM-SHA256:AES256+EECDH:DHE-RSA-AES128-GCM-SHA256:AES256+EDH:ECDHE-RSA-AES256-GCM-SHA384:DHE-RSA-AES256-GCM-SHA384";
        listen 443 ssl;
        location / {
            root root;
            index index.html index.htm index.php;
        }
    }

    server{
        listen 80;
        server_name localhost;
        location / {
            root webstore;
            index index.html index.htm index.php;
        }
    }

    upstream srv_pool {
        server example.com;
    }

    include mime.types;
    default_type application/octet-stream;

    sendfile on;

    keepalive_timeout 65;
}
```



Warning

Make sure that nginx can start a process with the given configuration file, without throwing an error.

Copy Content

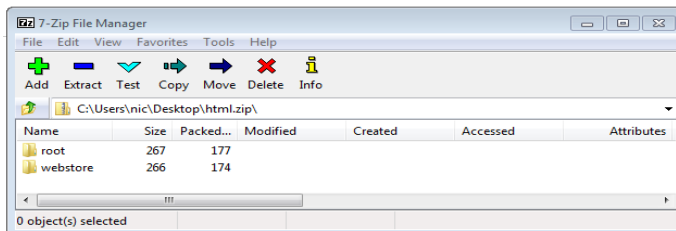
PROMPTSET		
Store-Object	Enter the Store-Object where the zip folder with the content is located in.	Required

You can use this action if you want to run a webserver with your own pages.

Just create a ZIP-File and move all your content folder into the ZIP-File you just created. Now you have to upload the ZIP-File to a Store-Object. The action will then extract the ZIP-File into the nginx folder.

conf	20.07.2016 09:20	File folder	
contrib	08.07.2016 10:31	File folder	
docs	08.07.2016 10:31	File folder	
html	08.07.2016 10:31	File folder	
logs	05.07.2016 17:58	File folder	
root	20.07.2016 11:31	File folder	
temp	05.07.2016 17:58	File folder	
webstore	20.07.2016 11:31	File folder	
nginx.exe	05.07.2016 17:31	Application	2 856 KB

The nginx-folder after the action.



The folder-structure in the zip folder.

Now you are able to enter this directory in the [Add HTTP Server Action](#) by defining the root-Directory



The name of each entity in the stored object is not relevant for this action.

Add HTTP Server

PROMPTSET		
Listen	Defines the port, on which the server will listen.	Required
Server Name	Defines the name of the virtual server.	Required
Root Directory	The directory where the content, for the given server, is stored.	Required
Index-Files	Defines the index files for the given server. (<i>Seperated by a blank space ' '</i>)	Required

Variable-Name	Description
&HTTP_KEY#	Use this variable if you want to modify this server in the following actions in the workflow by entering this variable into the promptset e.g. Add Location

This action appends a virtual http server with the given **Server Name** at the end of the http block in the nginx configuration file.

Which looks something like this

```
server{
    listen 80;
    server_name localhost;
    location / {
        root html;
        index index.html index.htm index.php;
    }
}
```



Note

A normal http server and a https server cannot run on the same port, since we identify the server you added by their port number.



Note

If the server with the given name already exists in the configuration file, it won't be added.



Warning

In Order for our product to work properly the **conf** folder nor the **nginx.conf** file should be removed/renamed or moved somewhere else. Also do not manually add or remove major(e.g. *servers,protocols*) content.

Add HTTPs Server

PROMPTSET		
Listen	Defines the ssl port, on which the https server will listen.	Required
Server Name	Defines the name of the virtual https server.	Required
Root Directory	The directory where the content, for the given server, is stored.	Required
Index-Files	Defines the index files for the given server. (Seperated by a blank space ' ')	Required

Variable-Name	Description
&HTTPS_KEY#	Use this variable if you want to modify this server in the following actions in the workflow by entering this variable into the promptset e.g. Add Location

This action adds a HTTPs Server to the configuration file.

Which looks something like this

```
server {  
    listen          443 ssl;  
    server_name     localhost;  
    ssl_certificate  /etc/nginx/ssl/ssl.key;  
    ssl_certificate_key /etc/nginx/ssl/ssl.crt;  
    ssl_protocols   TLSv1 TLSv1.1 TLSv1.2;  
    ssl_ciphers     HIGH:!aNULL:!MD5;  
}
```



Note

A normal http server and a https server cannot run on the same port, since we identify the server you added by their port number.



Note

This is just an example. Our action will save another cipher to the configuration file, which covers most of todays encryption algorithms



Warning

By default the **certificate** and the **certificate_key** are not added to the configuration file. To do this just use the action [Add Certificate](#) .

Add Certificate

PROMPTSET		
HTTPs Server	The https server you want to add the certificate to.	Required
Store-Object	The Store-Object where the Certificate and Key files are located in.	Required

To use this action you first have to upload your certificate key and the certificate into a stored object.

This action will then add the uploaded ssl certificate and ssl key to the nginx folder on your system and will add their path into the nginx configuration file.

Which looks something like this

```
server{
    server_name localsslhost;
    ssl_certificate /etc/ssl/ssl.crt;
    ssl_certificate_key /etc/ssl/ssl.key;
    ssl_protocols TLSv1 TLSv1.1 TLSv1.2;
    ssl_ciphers "EECDH+AESGCM:EDH+AESGCM:ECDHE-RSA-AES128-GCM-SHA256:AES256+EECDH:DHE-RSA-AES128";
    listen 443 ssl;
    location / {
        root html;
        index index.html index.htm index.php;
    }
}
```



Note

The name of each entity in the stored object is not relevant for this action.



Warning

But pay attention to the extension of your certificate and key files, in order for nginx to work properly.

Add Server Pool

PROMPTSET		
Pool Name	Defines the Server Pool Name, that will be added into the nginx configuration file.	Required
Server Name	Name of the server that will be added to the given pool. Add more than one server by seperating each server with blank space example: "example.com example2.com"	Required

Variable-Name	Description
&POOL_KEY#	This variable stores the Pool and you can use in the following actions e.g. Add Location in the Proxy Pass

This action adds the given server to either a new pool or and already existing one. By default the [load balancing](#) method is round robin.

```
upstream backend {  
    server backend1.example.com      weight=5;  
    server backend2.example.com:8080;  
    server unix:/tmp/backend3;  
  
    server backup1.example.com:8080  backup;  
    server backup2.example.com:8080  backup;  
}
```



Note

If the server pool already exists in the nginx configuration file, the given **Server Name** will be added to that **Pool**.

Add Location

PROMPTSET		
Server	The location will be added to this virtual server int the configuration file.	Required
URL	The URL of the location you want to add to the server.	Required
Proxy Pass	The pool that will be used as a proxy pass.	Optional

This action adds the given URL to the selected server in the configuration file

Which looks something like this

```
location / {  
    proxy_pass http://localhost:8000;  
    root      html;  
    index     index.html index.htm;  
}
```



Note

If the location you want to add already exists, only the Proxy Pass Parameter - if not empty - will be added to the existing location in the configuration file.

Remove Server Pool

PROMPTSET		
Pool Name	Defines the Server Pool Name, that will be removed from the nginx configuration file.	Required

This action removes the given Server Pool from the configuration file.



Warning

Make sure that all of your server pools are added by the automic engine, in order for you to be able to select the wanted server pool in a dropdown menu. If you have your own configuration file make sure you check out this action [Discover Configuration.](#)

Remove Location

PROMPTSET		
Server	The server you want to remove the location from	Required
URL	The location you want to remove.	Required

This action removes the location from the given server in the nginx configuration file.



Warning

Make sure that all of your locations are added by the automic engine, in order for you to be able to select the wanted server pool in a dropdown menu. If you have your own configuration file make sure you check out this action [Discover Configuration](#).

Remove Server (HTTP & HTTPSs)

PROMPTSET		
Server	Defines the Server Pool Name, that will be removed from the nginx configuration file.	Required

This action removes the given http or https server from the nginx configuration file.



Warning

Make sure that all of your servers are added by the automatic engine, in order for you to be able to select the wanted server pool in a dropdown menu. If you have your own configuration file make sure you check out this action [Discover Configuration](#) .

Remove Server from Pool

PROMPTSET		
Pool Name	Defines the Server Pool Name, that will be removed from the nginx configuration file.	Required
Server	The server you want to remove from the given pool.	Required

This action removes the given server from the pool you specified.



Note

If the you remove the last server from the pool, the pool won't be removed.

Quit / Stop / Start Server

PROMPSET		
Path to executable	Path to the nginx folder, in which the executable is located.	Required

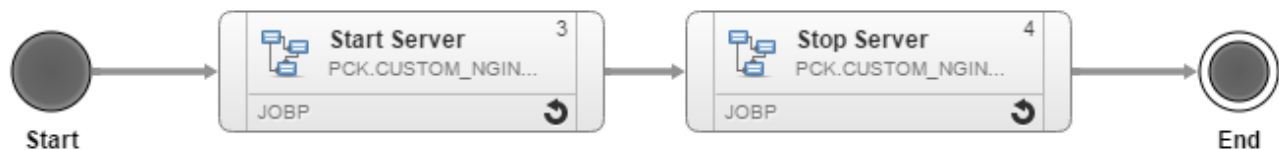
This action either starts a new nginx server or quits/stops a running nginx process.



Note

To **reload** your nginx process just simply drag in the **[Reload Server]** Action into your workflow.

You don't have to manually type in the path to the nginx folder, since we store that on our server.



Warning

If you want you want to perform the **[Start Server]** Action, make sure that there are no running nginx server on your agent.

Uninstall nginx

This action removes the nginx folder from the directory that is linked with your user object.



Note

Use this action when you want to reinstall nginx or just want to get rid of the entire folder.

You can use the action [Install nginx](#) to reinstall the latest version of nginx.



Warning

Make sure you have write permissions for the specified directory, otherwise the nginx folder can not be removed.