CRICKETS AUTOMATION
Training and Tutorials

xvisionIOT

Running on

Docker container

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Abstract

This guide explains how to run xvisionIOT on Docker container for ARM v7 host.

Docker is an impressive technology that allows applications to run in separated containers, dramatically increasing security and easy of use.

Setup of Docker Container is done by Portainer, a simple and effective software to manage images and containers.

This technical note applies to xvisionIOT for ARM v7 cpu.

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1 Container setup

If you have got a xvisionIOT license protected by USB hardware dongle, follow the instructions below. If you have opted for a software key, follow the instructions below ignoring hardware key, then proceed to step 2).

1) Insert USB Protection dongle in a USB port of your appliance
2) Start **Portainer** and login *
3) In *Portainer* menu select *Containers* and choose *+Add container*
4) Set Name with a string of your choice (i.e. xvisionIOT)
5) Set Image to **crickets/xvisioniot** (use latest version available)
6) In **Network Ports configuration** add the following ports mapping using *+publish a network port*:
   8010 as 80
   8011 as 443
   27015 as 27015
   502 as 502 (Modbus slave, if needed)

Note: you must remap to unassigned ports (free ones)

7) Go to *Advanced container settings*. Choose *Command & logging* and select *Interactive & TTY*

8) *Network*: leave *bridge*
9) *Env*: set the following using *+add environment variable*
   TZ = Europe/Rome   (choose your timezone)
   SIMULATION = 1   (if you want to start demo simulation)

10) *Restart Policy*: select *Always*

11) *Runtime & Resources*: switch on *Privileged mode* and *Add device* host **=/dev/bus/usb**   container=**/dev/bus/usb**
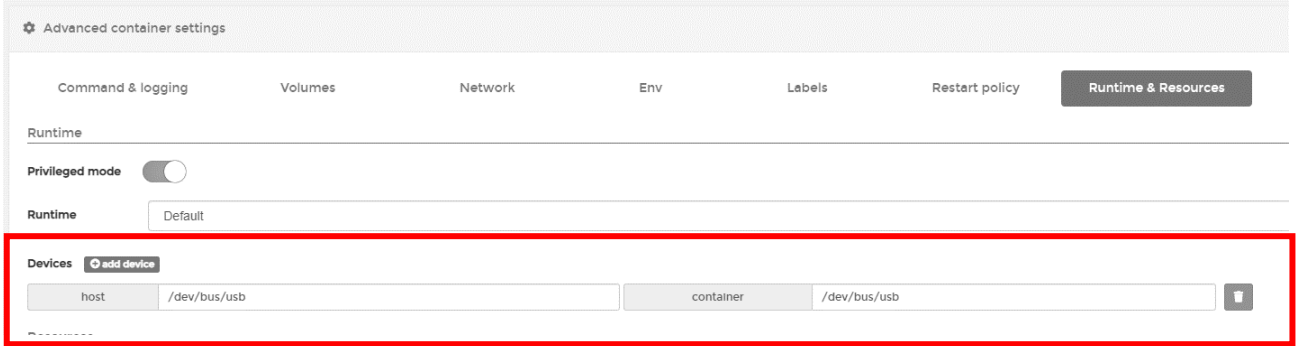
12) In *Actions* select *Deploy* the container to create and run the new container

Warning: the new created container has no project inside, so you must publish the project of your choice.

(*) run Portainer from Putty, if not already running:

docker run -d -p 8000:8000 -p 9000:9000 -v /var/run/docker.sock:/var/run/docker.sock -v portainer_data:/data portainer/portainer

2 Software key setup

If you have got a xvisionIOT license protected by a software key, follow the instructions below.

Warning: software key is available only for Raspberry compatible devices. Please check before buy.

1) Remove xvisionIOT USB protection dongle, if any, and restart the container
2) In Portainer select your xvisionIOT container and open its console by pressing ">_" located on the same row, then press *Connect*

3) Move to xvisionIOT directory *cd /data/webhmi*

4) Get super user privilegs: *sudo -s*

5) Run *./ExportLicense*, that creates the *hardwareID.dat* file

6) Edit hardwareID.dat and copy its content (**do not modify it**):
   nano hardwareID.dat

select all the text with the mouse, then copy it to clipboard (right click copy), next paste it in the body of the email you will send to Crickets Automation to request authorization (info@crickets-it.com).
Close editor without saving (**CTRL+X**)

7) Wait for unlock code from Crickets. Crickets will send you the unlock code after receiving the hardwareID as at point 5).

8) Create the unlock file (if exists, first rename or move it to a backup location) and edit it:
   cd /data/webhmi
   nano license.dat

9) Copy the unlock code in the clipboard and paste it in the **license.dat** file. Save and close the file (**Ctrl+X,** type **Y, Ctrl+O**).

10) Restart your container selecting *Containers* from menu, then select the container and press *Res*

Verify your license

1) browse license information typing in the container console:
   cat /data/webhmi/license.inf

```
root@120d3b3021fa:/data/webhmi# cat license.inf
Serial=0391831001
Credits=4096
Clients=3
Internet clients=4
Pages=2
Drivers=22
Devices=15
C - Runtime=
D - DataLogger=
E - Trend=
G - Recipe=
N - EMail=
R - Script=
Driver=MOD
Driver=MODTCP
Driver=SIETCP
root@120d3b3021fa:/data/webhmi#
```

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