

PSI3542 – 2023

SISTEMAS EMBARCADOS PARA IOT

AULA 13 – ATIVIDADE 13.1 INSTALAÇÃO HAOS

SERGIO TAKEO KOFUJI

KOFUJI@USP.BR

Home Assistant Thermostat Card

www.smarthomescene.com



Better Thermostat UI Card

www.smarthomescene.com



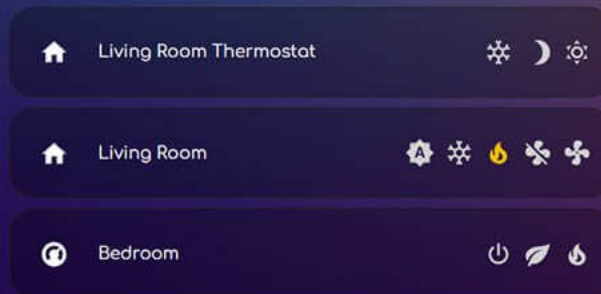
Lovelace Thermostat Card

www.smarthomescene.com



Climate Mode Entity Row Card

www.smarthomescene.com



Mushroom Climate Card

www.smarthomescene.com



Dark Thermostat

www.smarthomescene.com



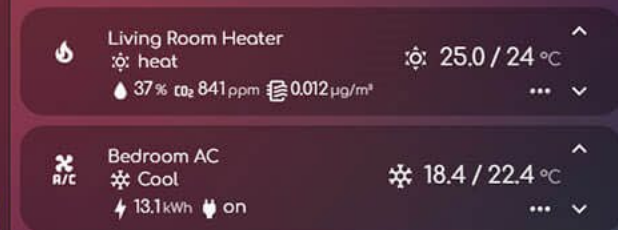
Simple Thermostat Card

www.smarthomescene.com



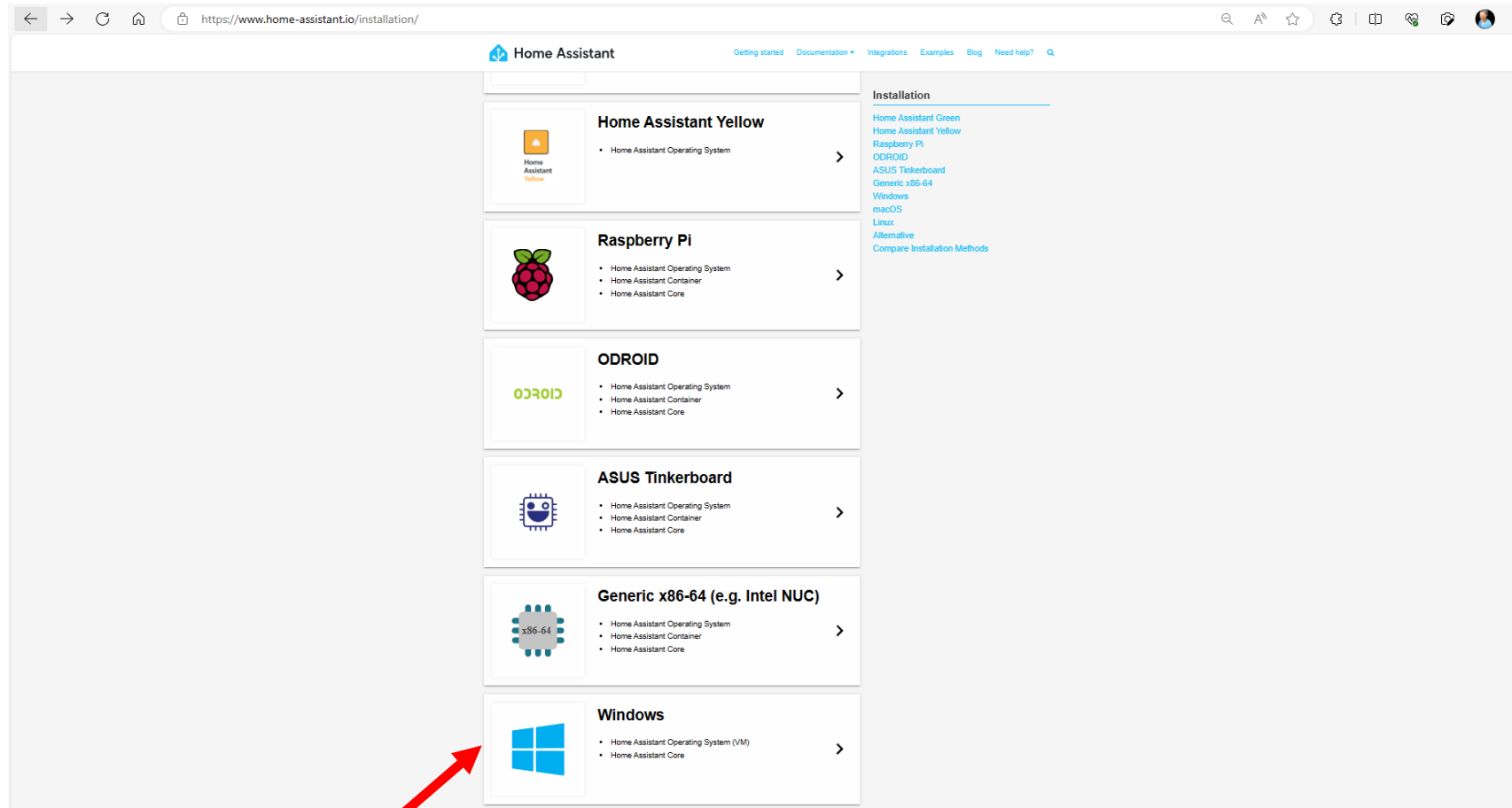
Mini Climate Card

www.smarthomescene.com



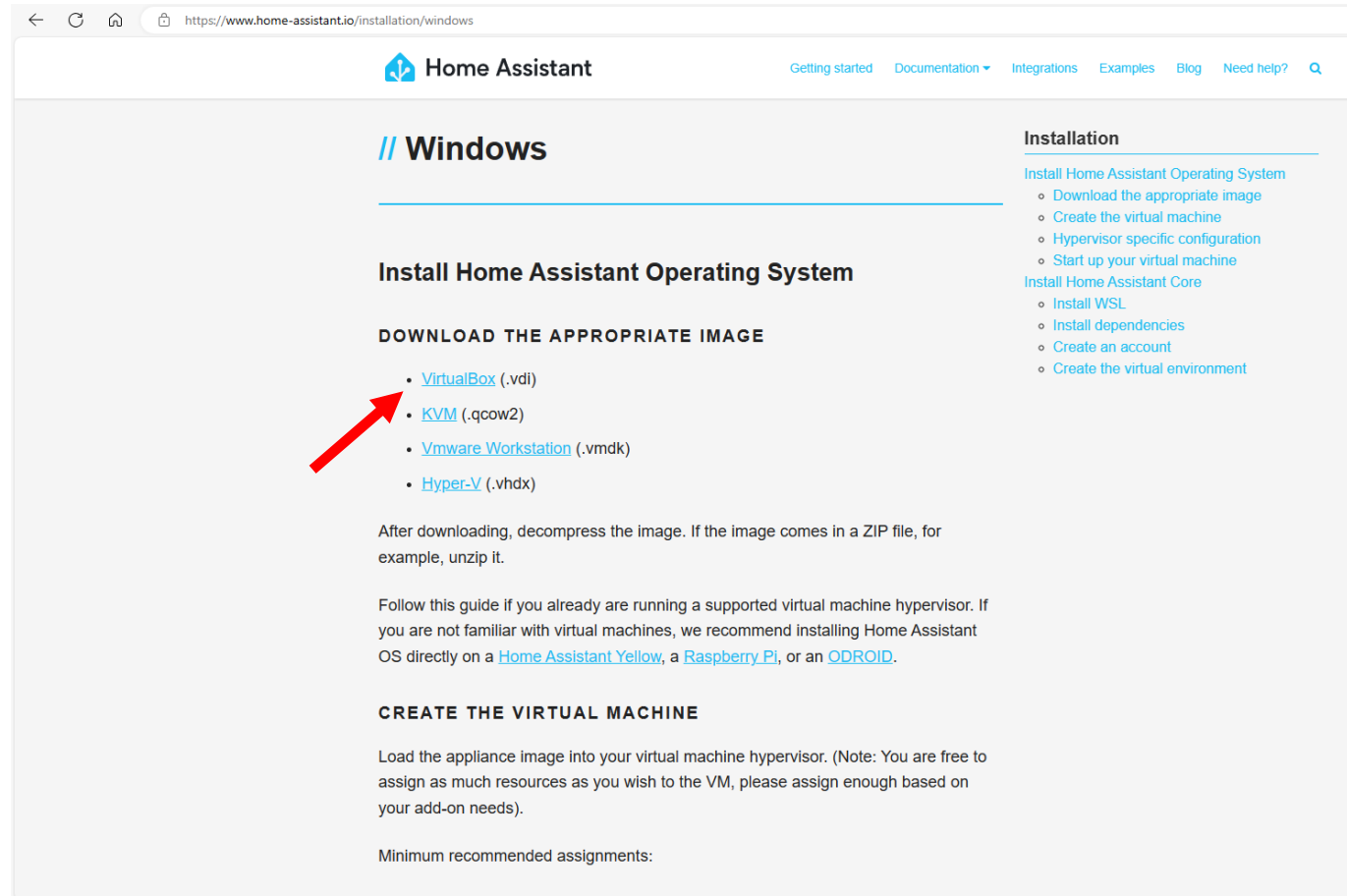
BAIXAR A IMAGEM DO HAOS

Baixar a Imagem do HAOS – Home Assistant Operating System



<https://www.home-assistant.io/installation/>

Baixar o arquivo “.vdi” na pasta Downloads



The screenshot shows a web browser window with the URL <https://www.home-assistant.io/installation/windows>. The page title is "Home Assistant" and the main heading is "Windows". The page content is organized into sections: "Install Home Assistant Operating System", "DOWNLOAD THE APPROPRIATE IMAGE", and "CREATE THE VIRTUAL MACHINE". A red arrow points to the "VirtualBox (.vdi)" link in the list of download options.

Home Assistant [Getting started](#) [Documentation](#) [Integrations](#) [Examples](#) [Blog](#) [Need help?](#)

// Windows

Install Home Assistant Operating System

DOWNLOAD THE APPROPRIATE IMAGE

- [VirtualBox](#) (.vdi)
- [KVM](#) (.qcow2)
- [Vmware Workstation](#) (.vmdk)
- [Hyper-V](#) (.vhdx)

After downloading, decompress the image. If the image comes in a ZIP file, for example, unzip it.

Follow this guide if you already are running a supported virtual machine hypervisor. If you are not familiar with virtual machines, we recommend installing Home Assistant OS directly on a [Home Assistant Yellow](#), a [Raspberry Pi](#), or an [ODROID](#).

CREATE THE VIRTUAL MACHINE

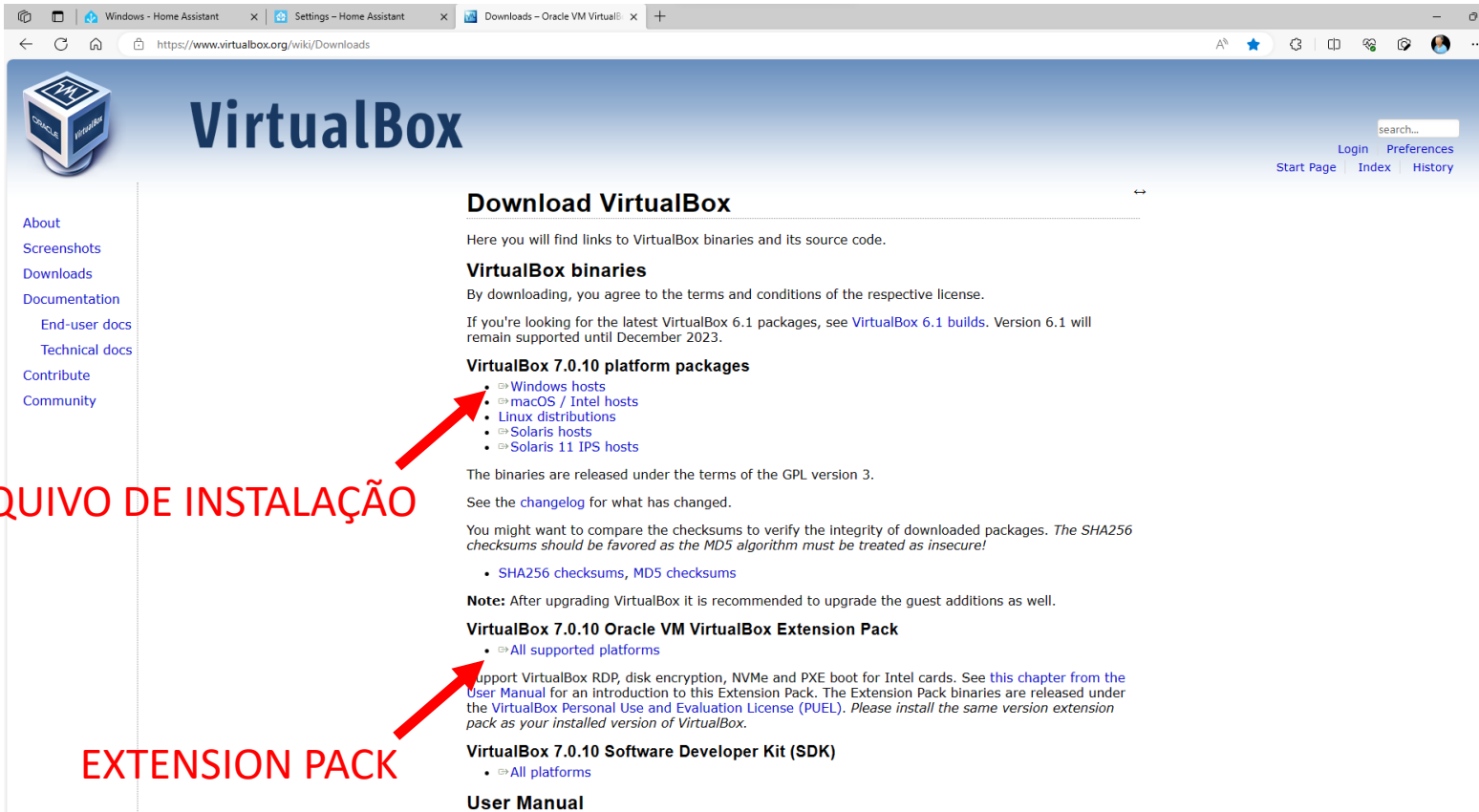
Load the appliance image into your virtual machine hypervisor. (Note: You are free to assign as much resources as you wish to the VM, please assign enough based on your add-on needs).

Minimum recommended assignments:

INSTALAÇÃO DO VIRTUALBOX

ETAPAS

- HABILITAR VIRTUALIZAÇÃO NA BIOS
- BAIXAR E EXECUTAR O ARQUIVO DE INSTALAÇÃO E O EXT. PACK



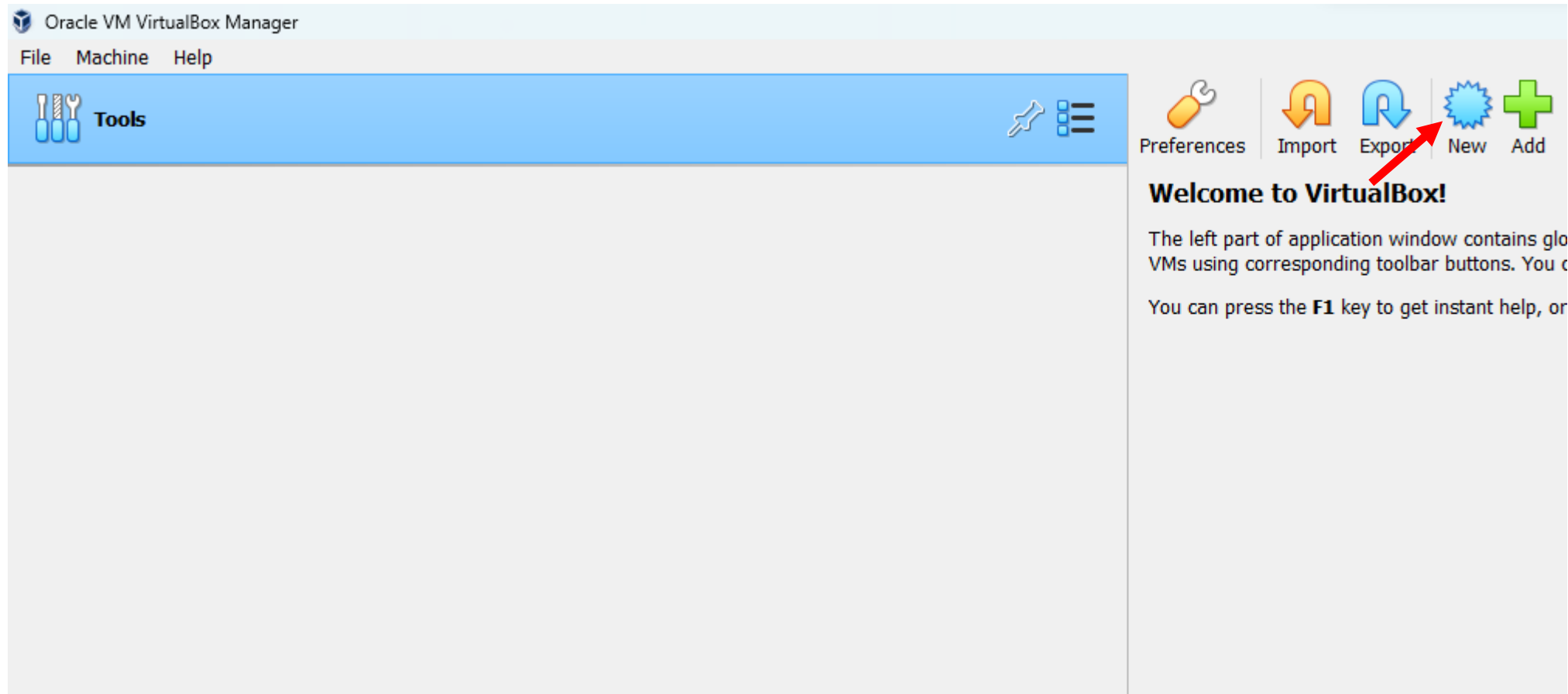
The screenshot shows the VirtualBox website's 'Downloads' page. The page title is 'VirtualBox' and the URL is 'https://www.virtualbox.org/wiki/Downloads'. The main heading is 'Download VirtualBox'. Below it, there is a section for 'VirtualBox binaries' with a list of platform packages: Windows hosts, macOS / Intel hosts, Linux distributions, Solaris hosts, and Solaris 11 IPS hosts. A red arrow points from the text 'ARQUIVO DE INSTALAÇÃO' to the 'Linux distributions' link. Another section is 'VirtualBox 7.0.10 Oracle VM VirtualBox Extension Pack' with a link for 'All supported platforms'. A red arrow points from the text 'EXTENSION PACK' to this link. Other sections include 'VirtualBox 7.0.10 Software Developer Kit (SDK)' and 'User Manual'.

ARQUIVO DE INSTALAÇÃO

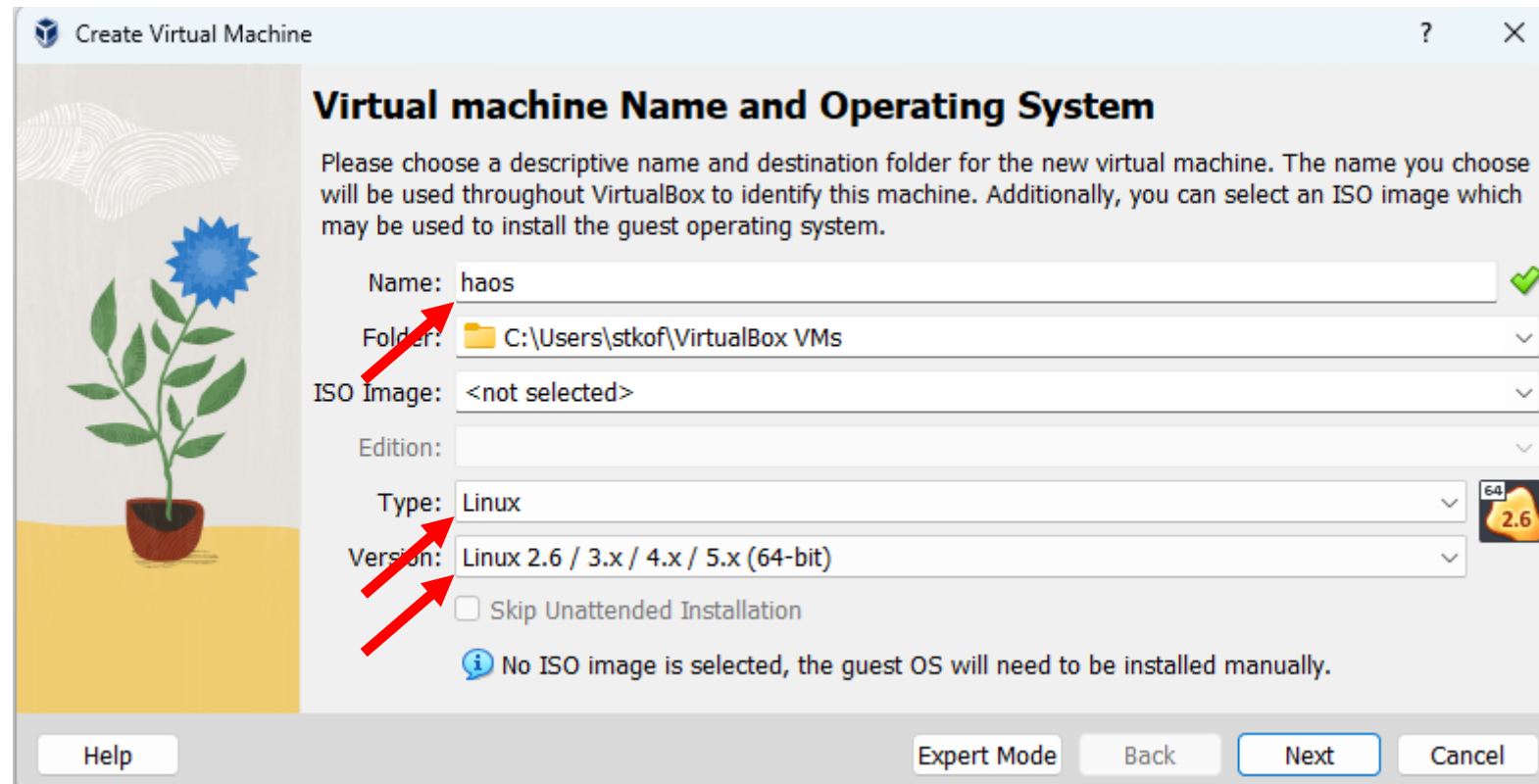
EXTENSION PACK

CRIAÇÃO DA VM VIRTUALBOX

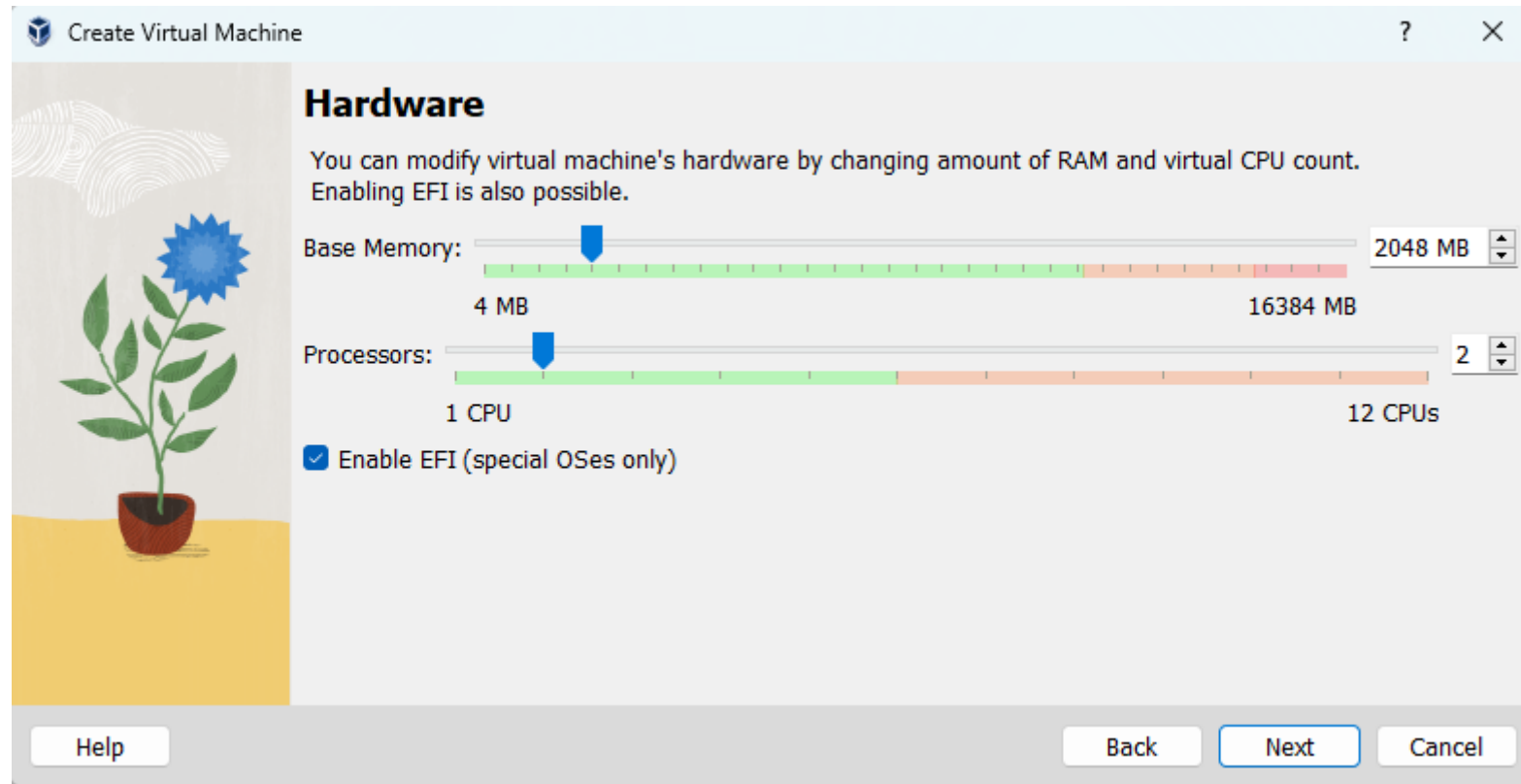
Criar uma máquina virtual no VirtualBox



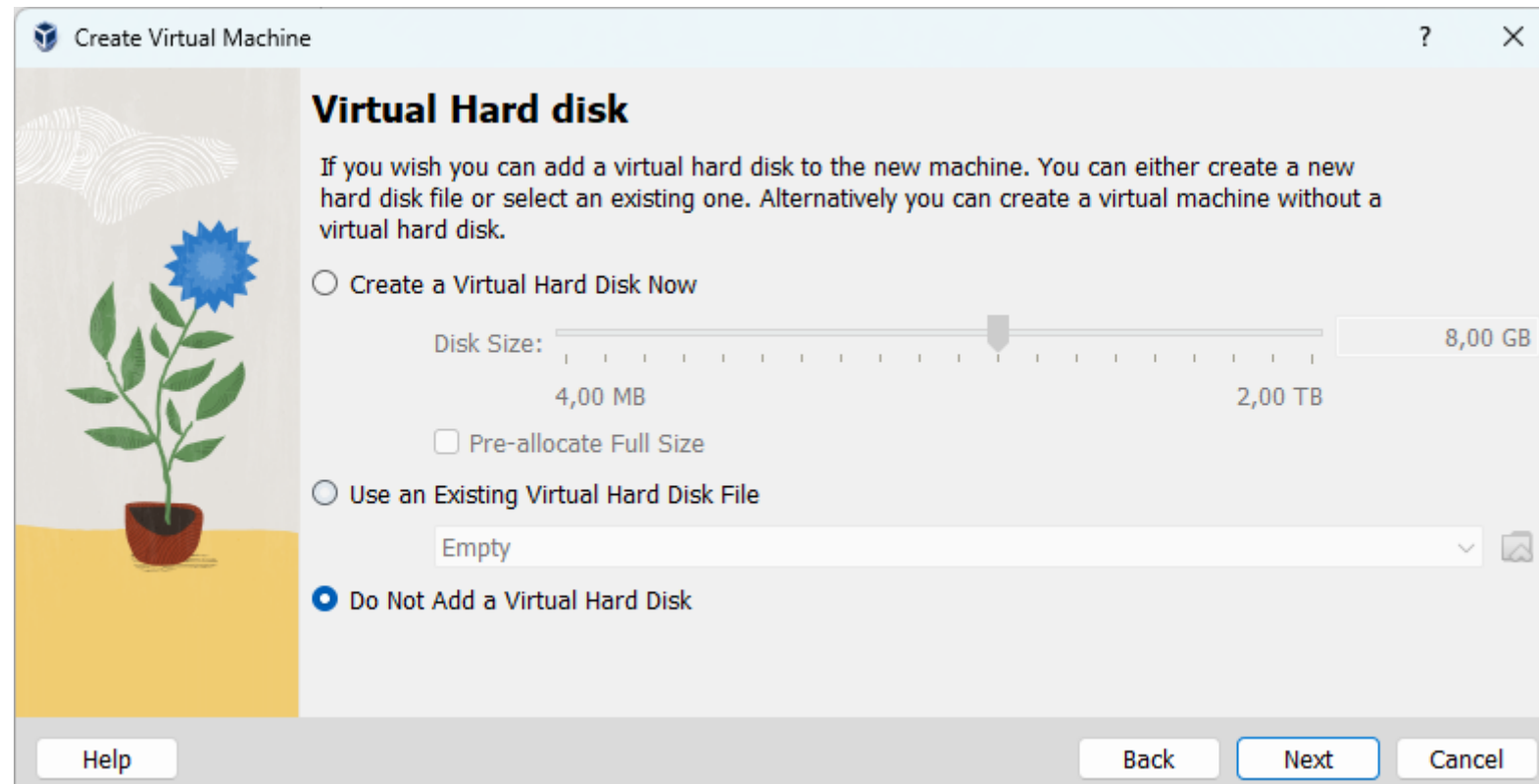
Criar uma VM Linux



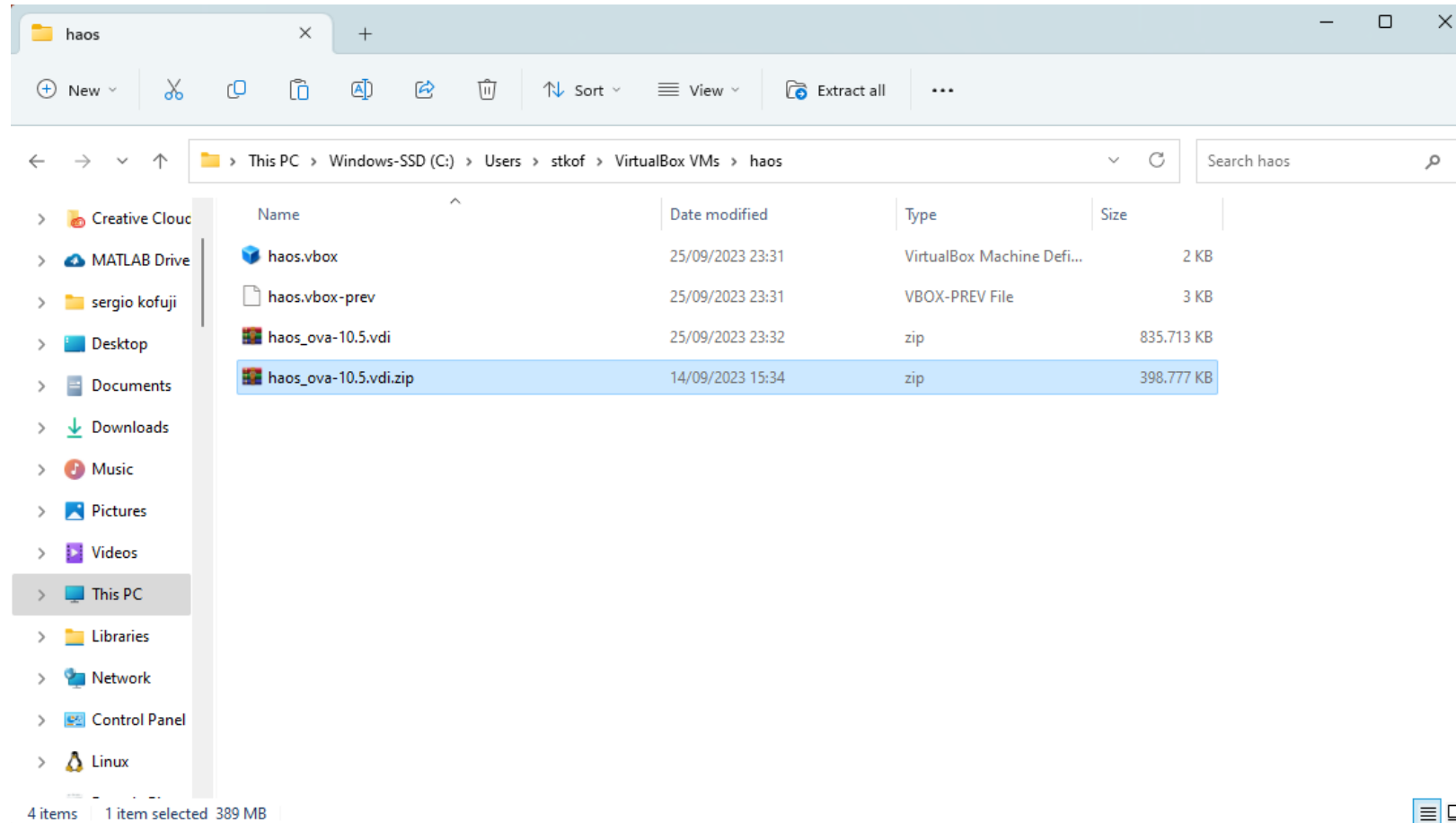
2048MBytes RAM, 2VCPUs, EFI



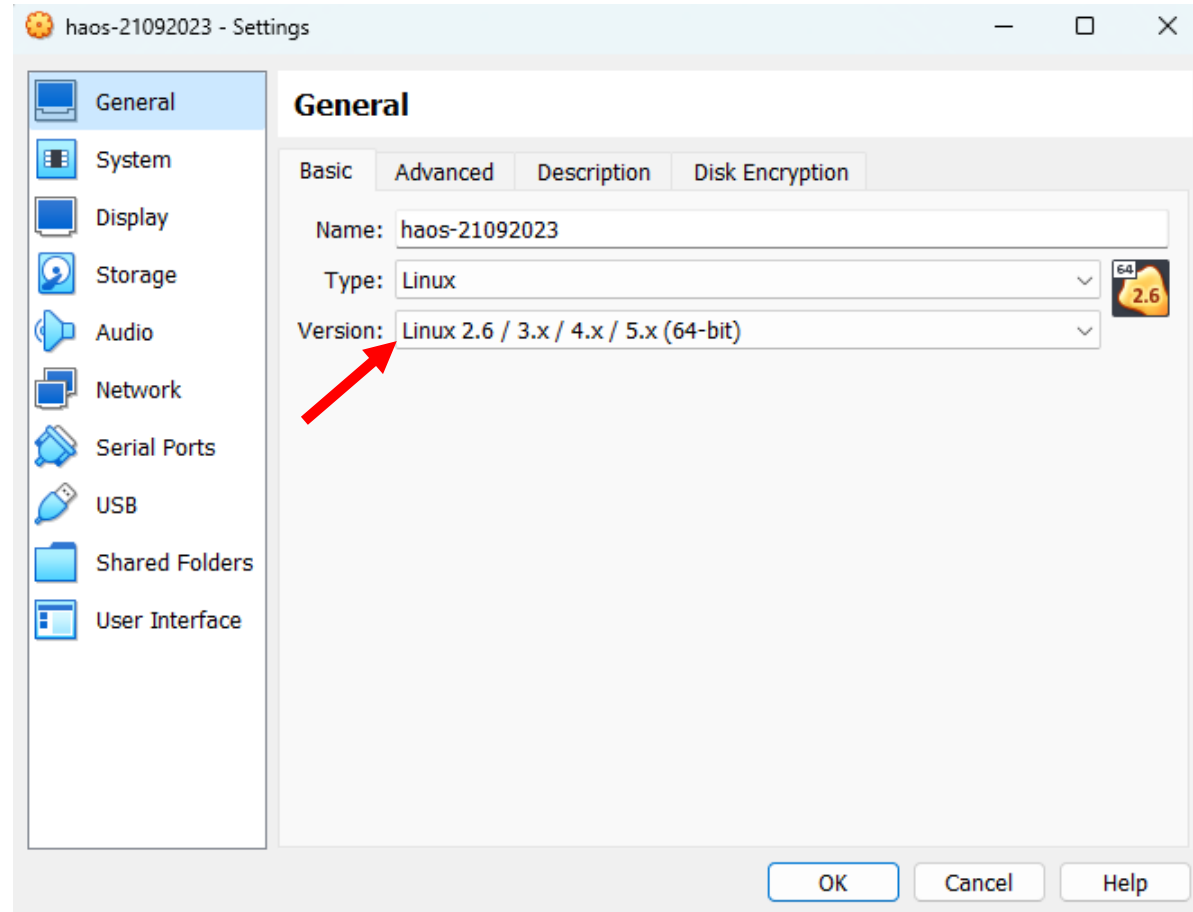
Não especifique o disco agora



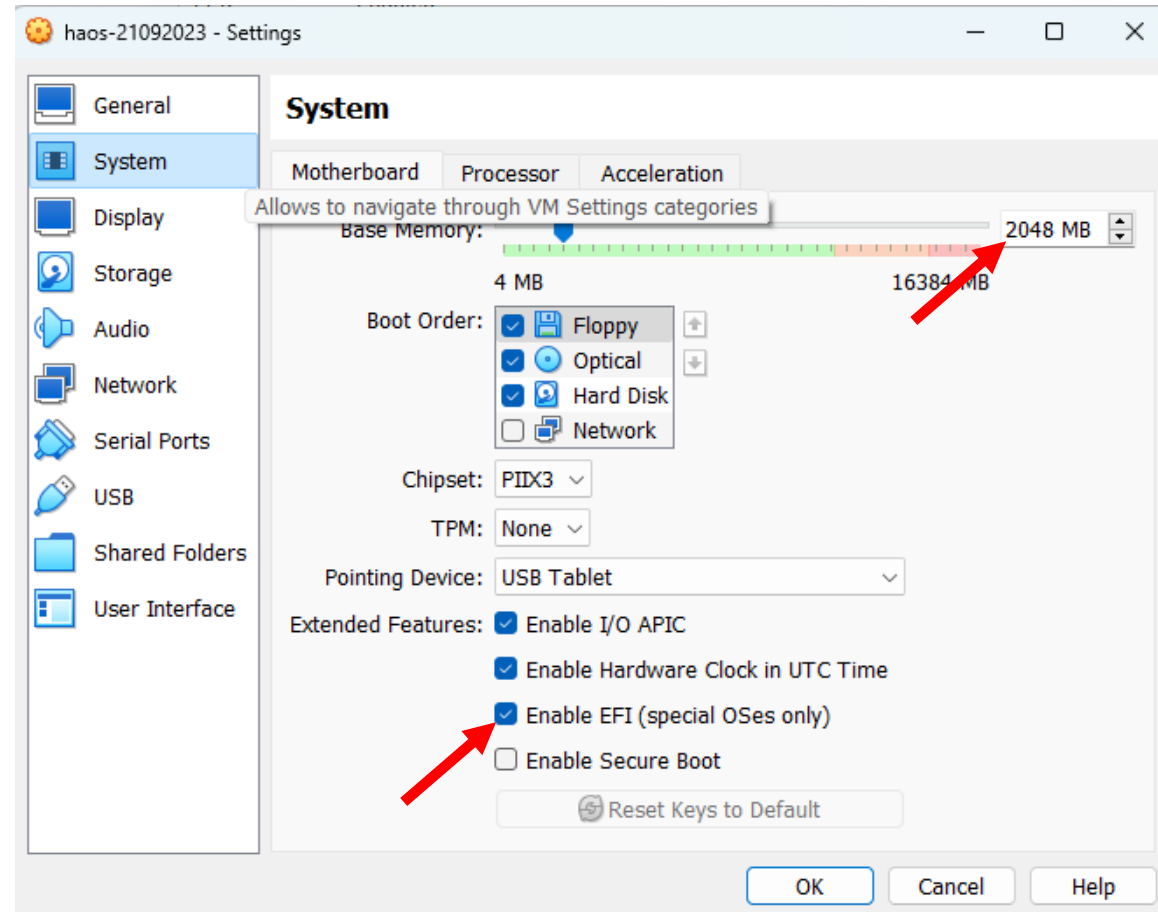
Descompacte o arquivo HAOS na pasta da VM Virtualbox



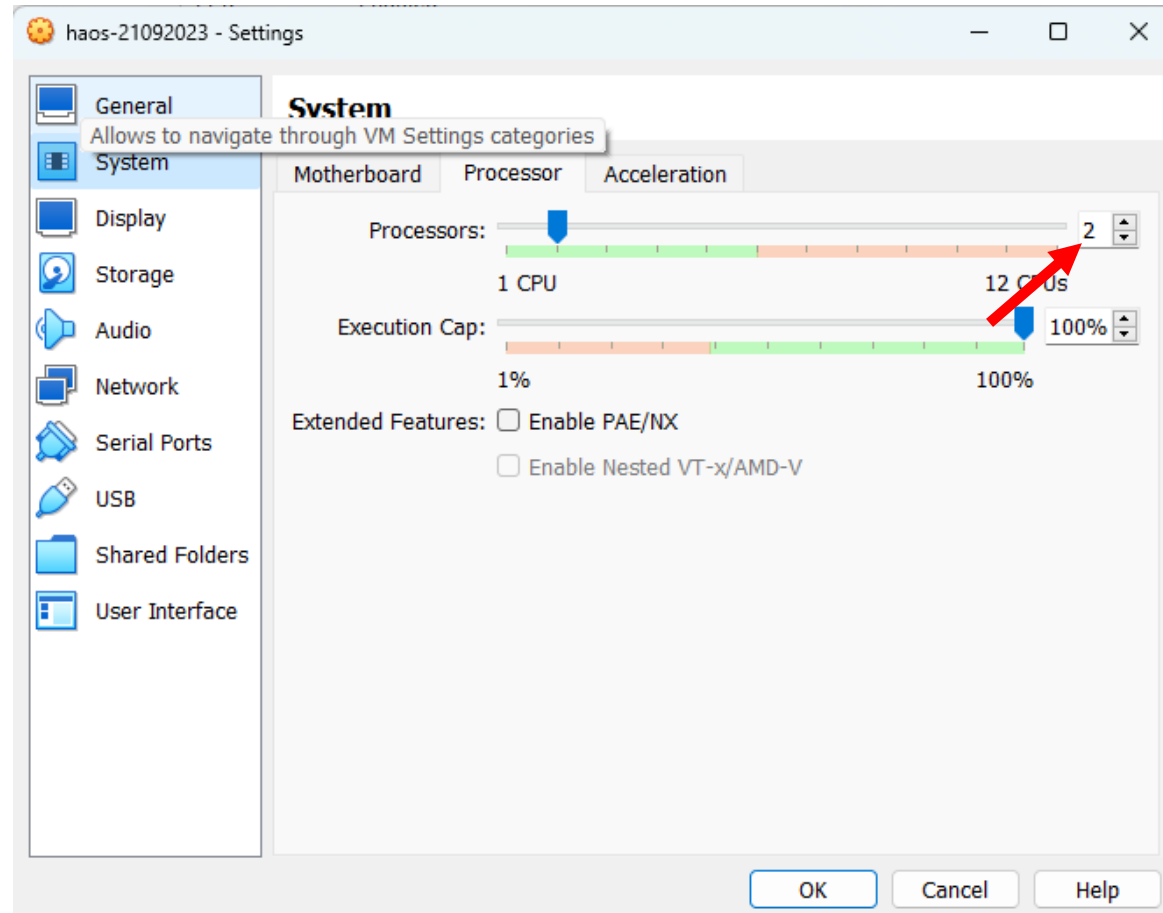
Edição da Configuração - Máquina Virtual do Virtualbox



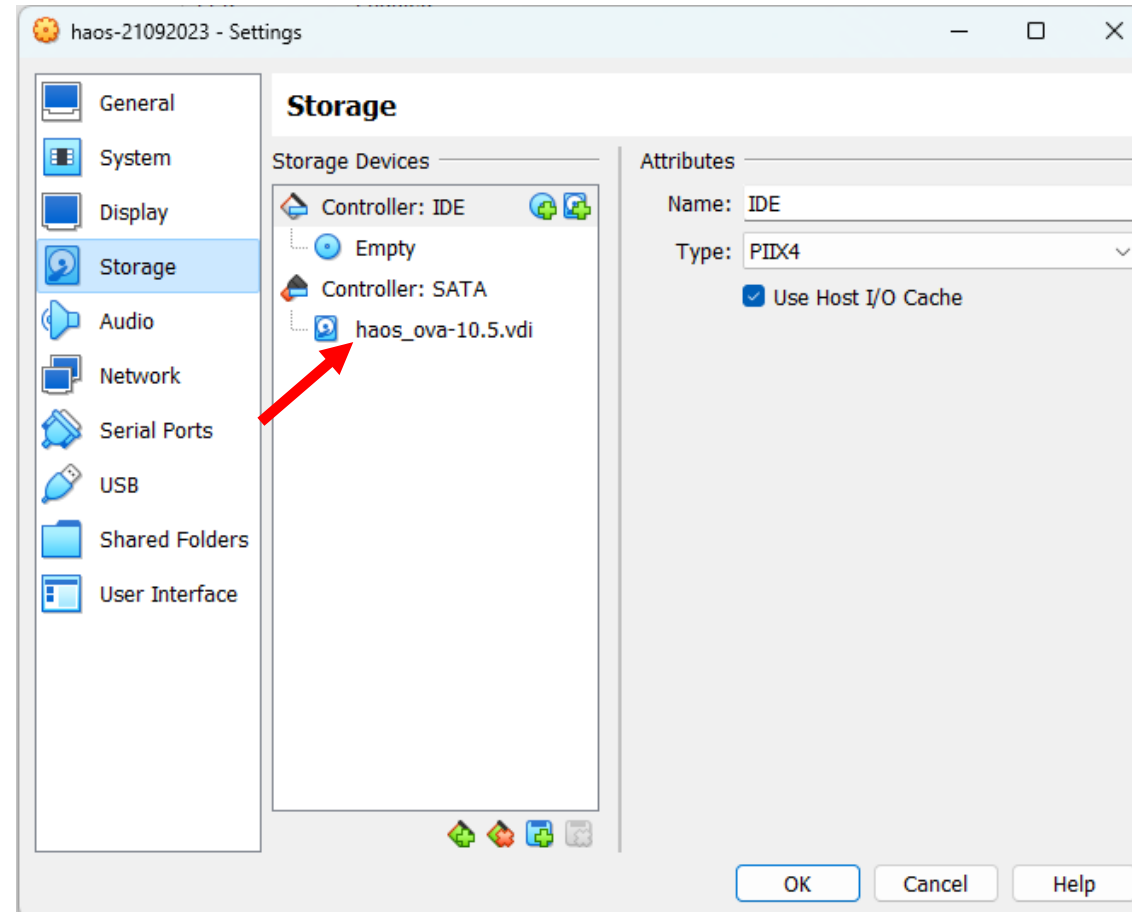
Edição da Configuração - 2GB RAM, Enable EFI



Edição da Configuração - 2 VCPUs



Edição da Configuração - Apontar o disco para o arquivo vdi do HAOS



haos - Settings

- General
- System
- Display
- Storage
- Audio
- Network
- Serial Ports
- USB
- Shared Folders
- User Interface

Storage

Storage Devices

- Controller: IDE
- Empty
- Controller: SATA

Attributes

Name: SATA

Type: AHCI

Port Count: 1

Use Host I/O Cache

haos - Hard Disk Selector

Medium Selector

Add Create Refresh

Name	Virtual Size	Actual Size
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Please choose a virtual hard disk file

sergio kofuji > VirtualBox VMs > haos

Search haos

Organize New folder

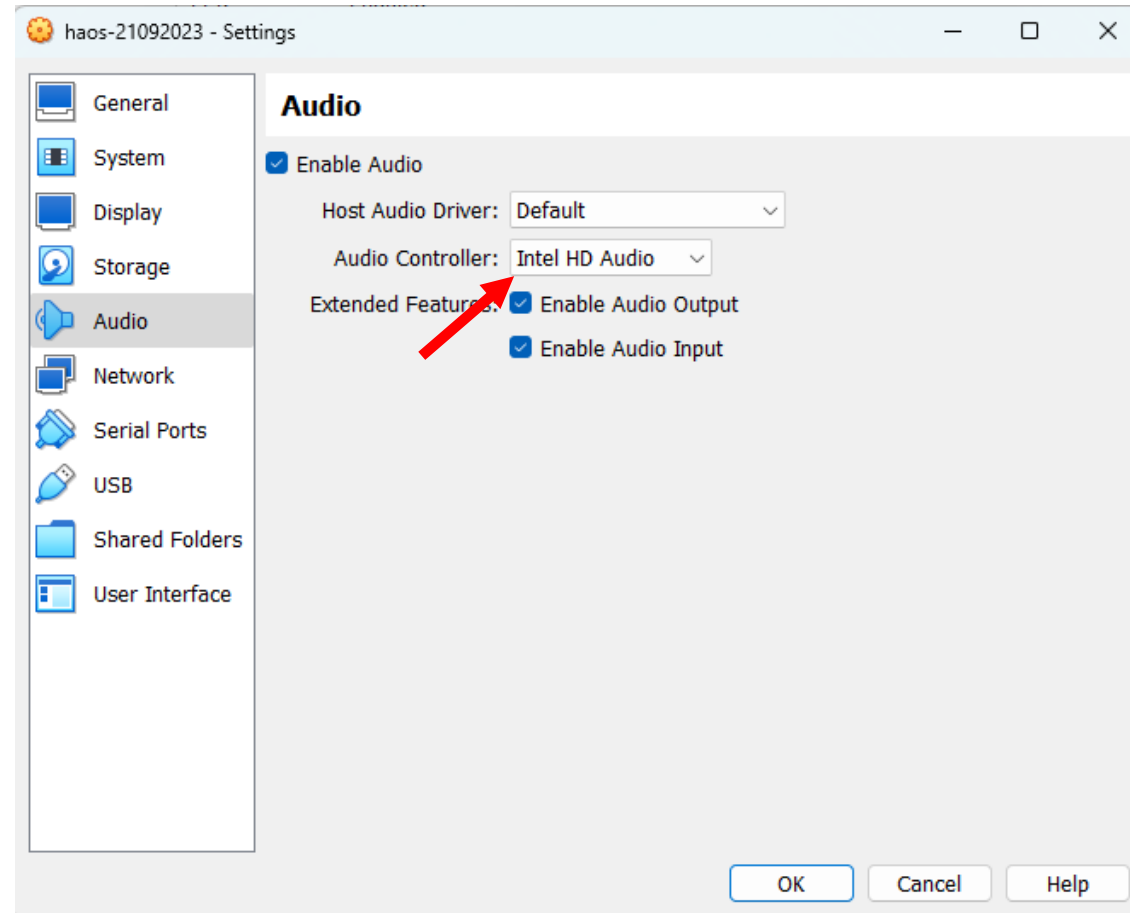
Name	Date modified
haos_ova-10.5.vdi	25/09/2023 23:32

File name: haos_ova-10.5.vdi

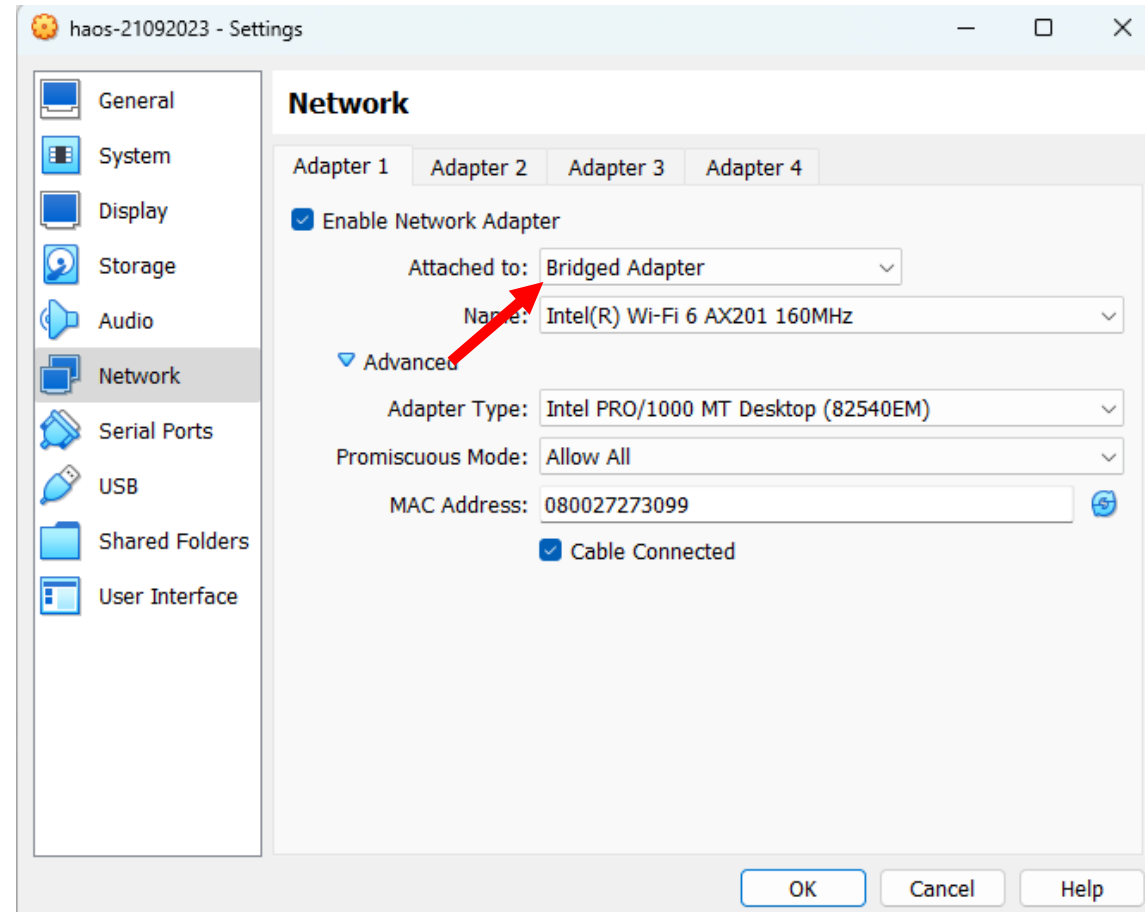
All virtual hard disk files (*.vmd)

Open Cancel

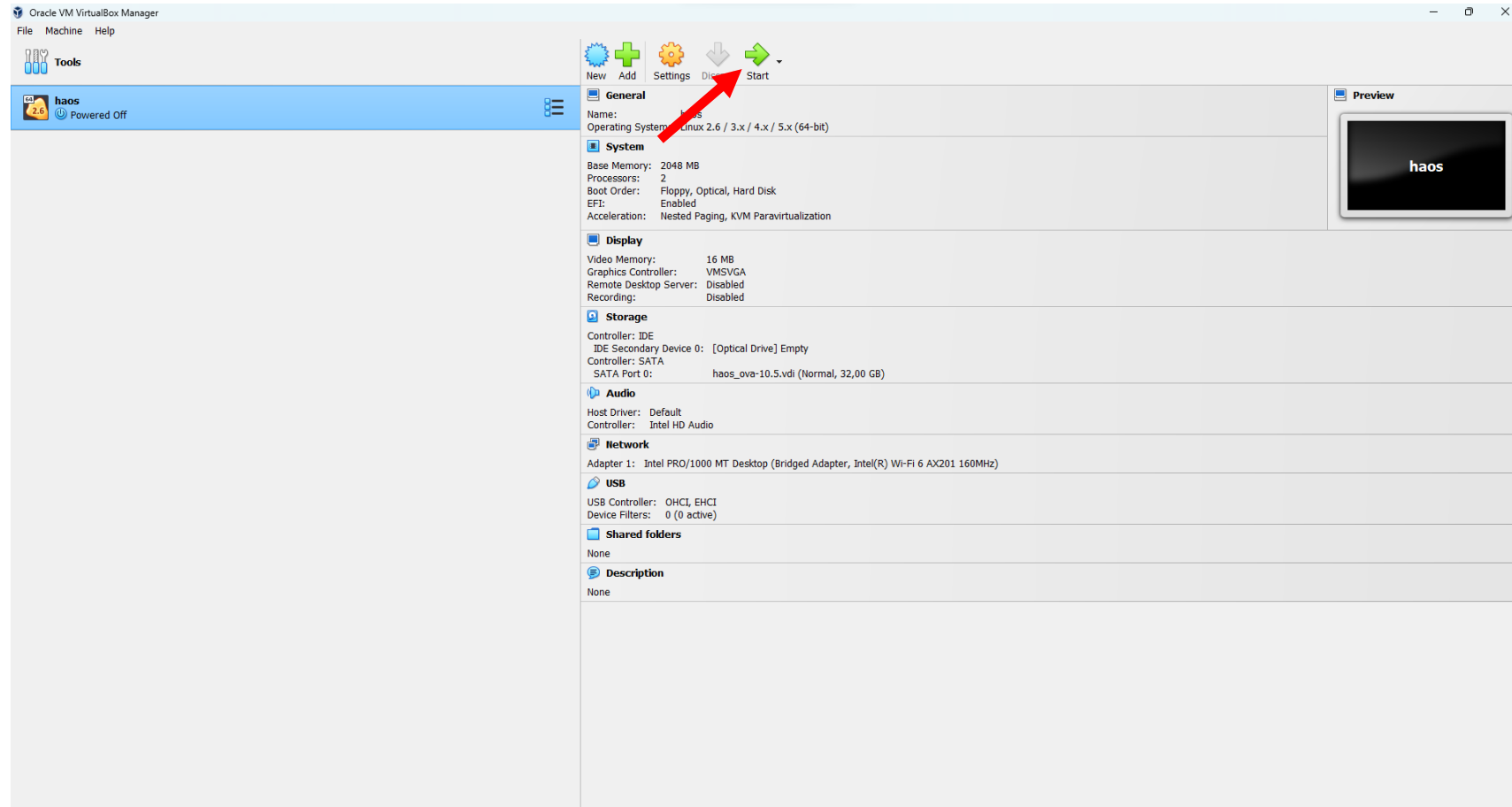
Edição da Configuração - Controlador de áudio Intel HD Audio



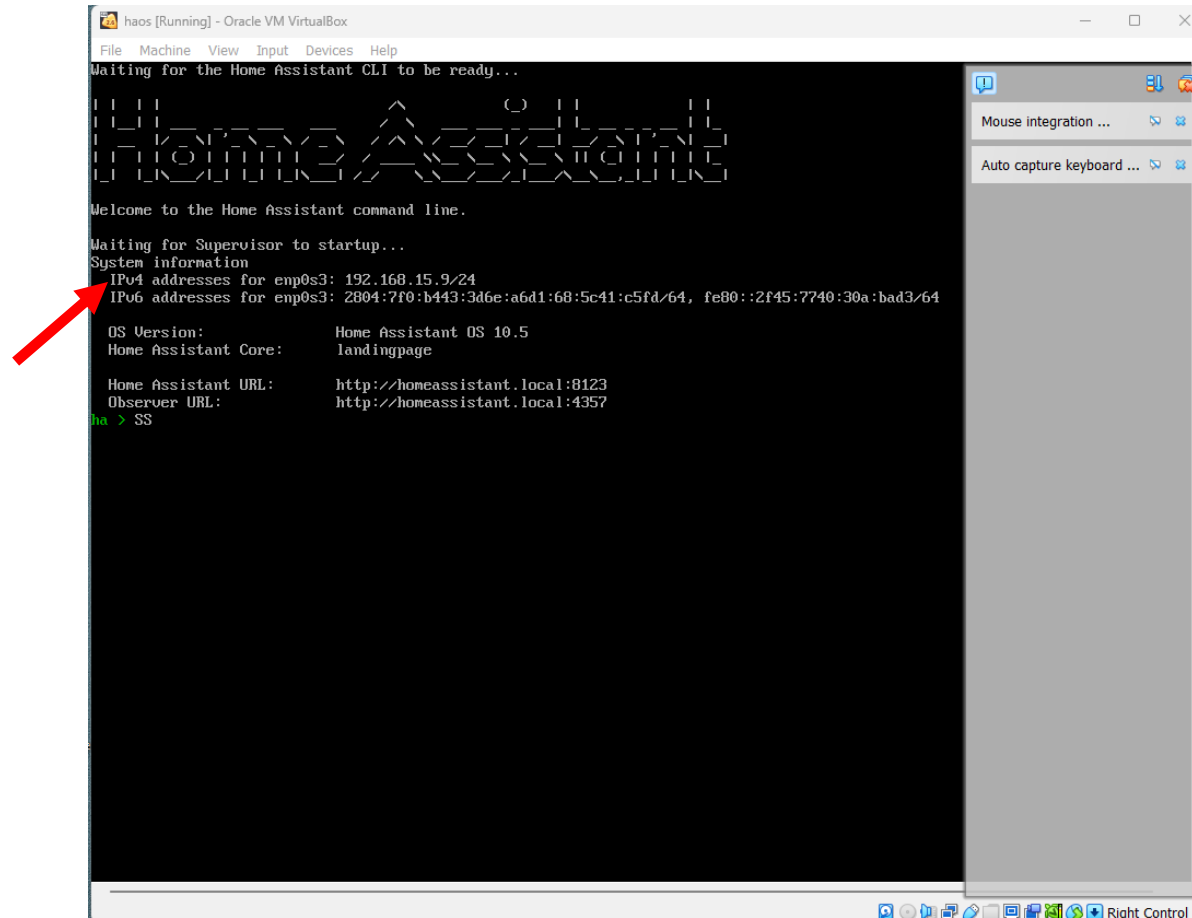
Edição da Configuração - Adaptador BRIDGE



Iniciar a VM



Copiar o endereço IPV4 da VM

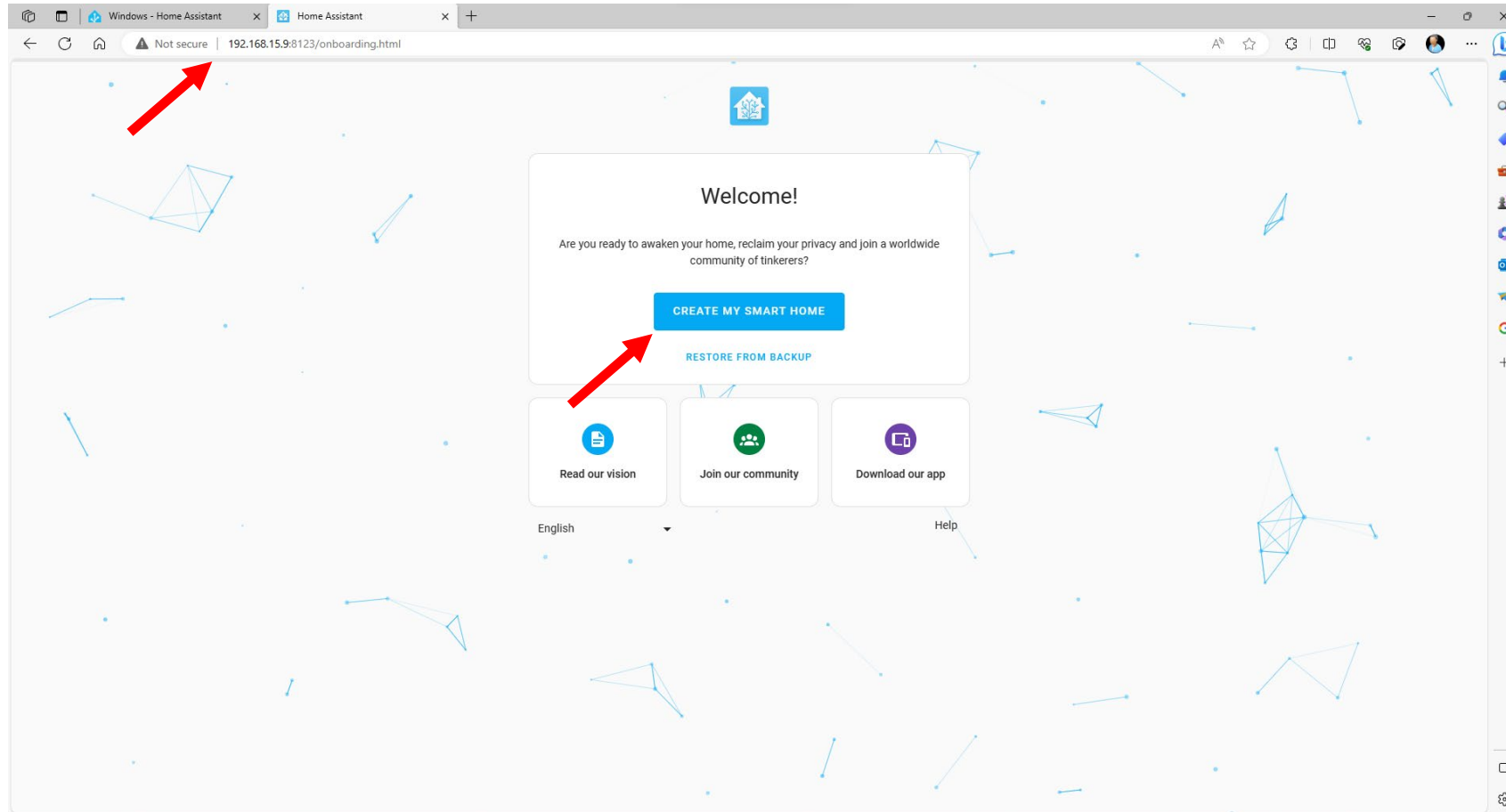


The screenshot shows a terminal window titled "haos [Running] - Oracle VM VirtualBox". The terminal output includes the following text:

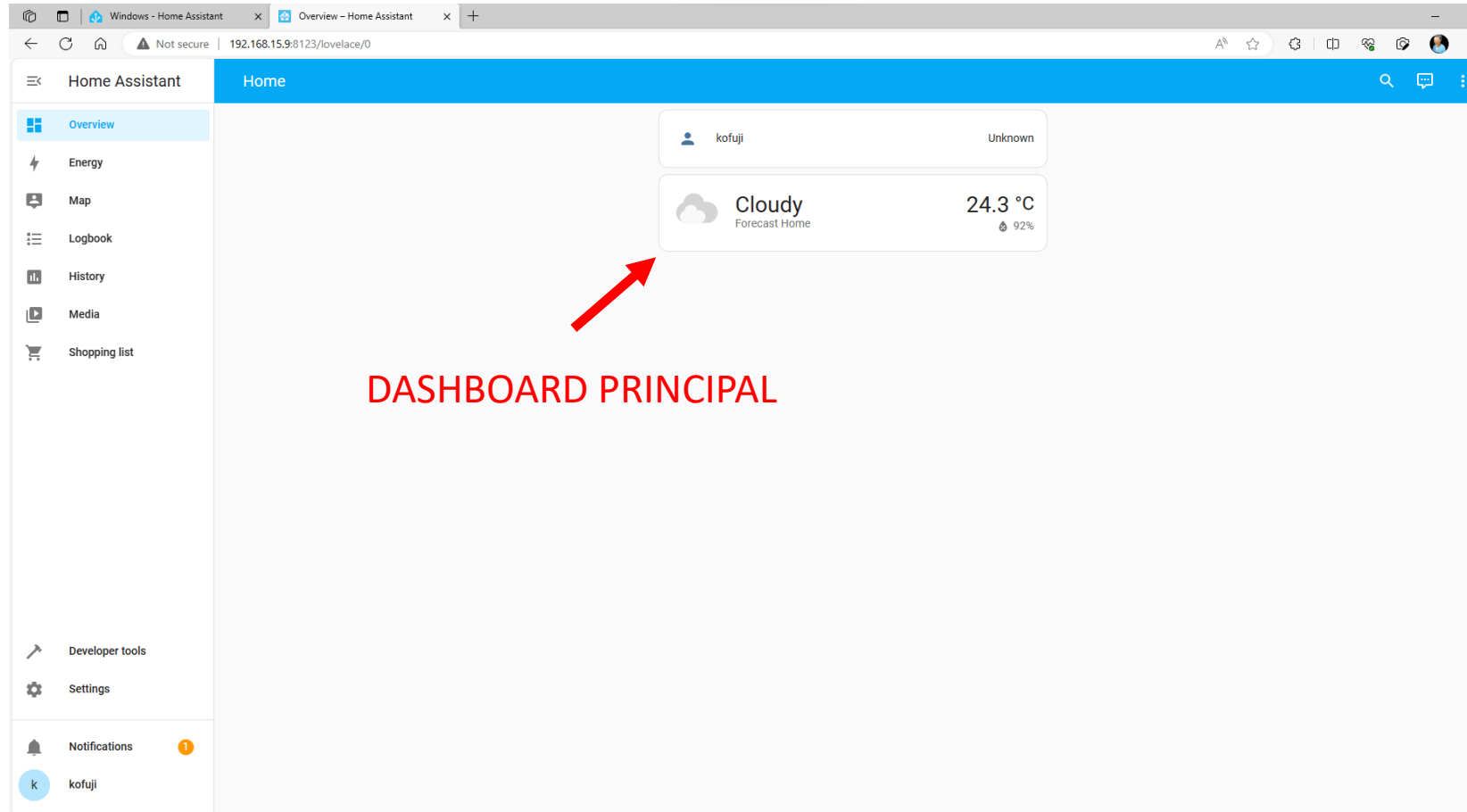
```
Waiting for the Home Assistant CLI to be ready...  
  
Welcome to the Home Assistant command line.  
  
Waiting for Supervisor to startup...  
System information  
IPV4 addresses for enp0s3: 192.168.15.9/24  
IPV6 addresses for enp0s3: 2804:7f0:b443:3d6e:a6d1:68:5c41:c5fd/64, fe80::2f45:7740:30a:bad3/64  
  
OS Version: Home Assistant OS 10.5  
Home Assistant Core: landingpage  
  
Home Assistant URL: http://homeassistant.local:8123  
Observer URL: http://homeassistant.local:4357  
ha > SS
```

A red arrow points to the line "IPV4 addresses for enp0s3: 192.168.15.9/24".

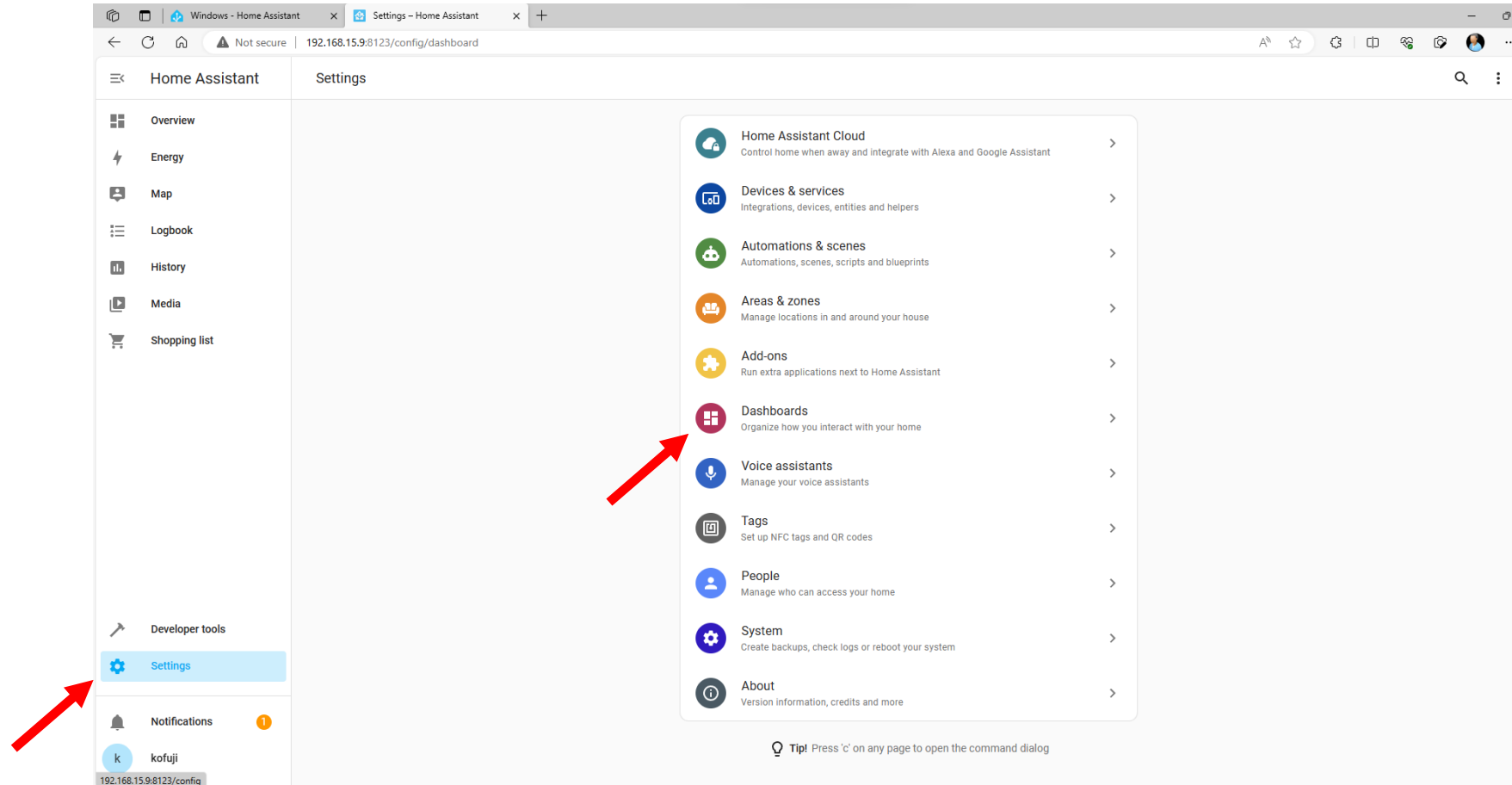
Iniciar a Casa Inteligente no Browser



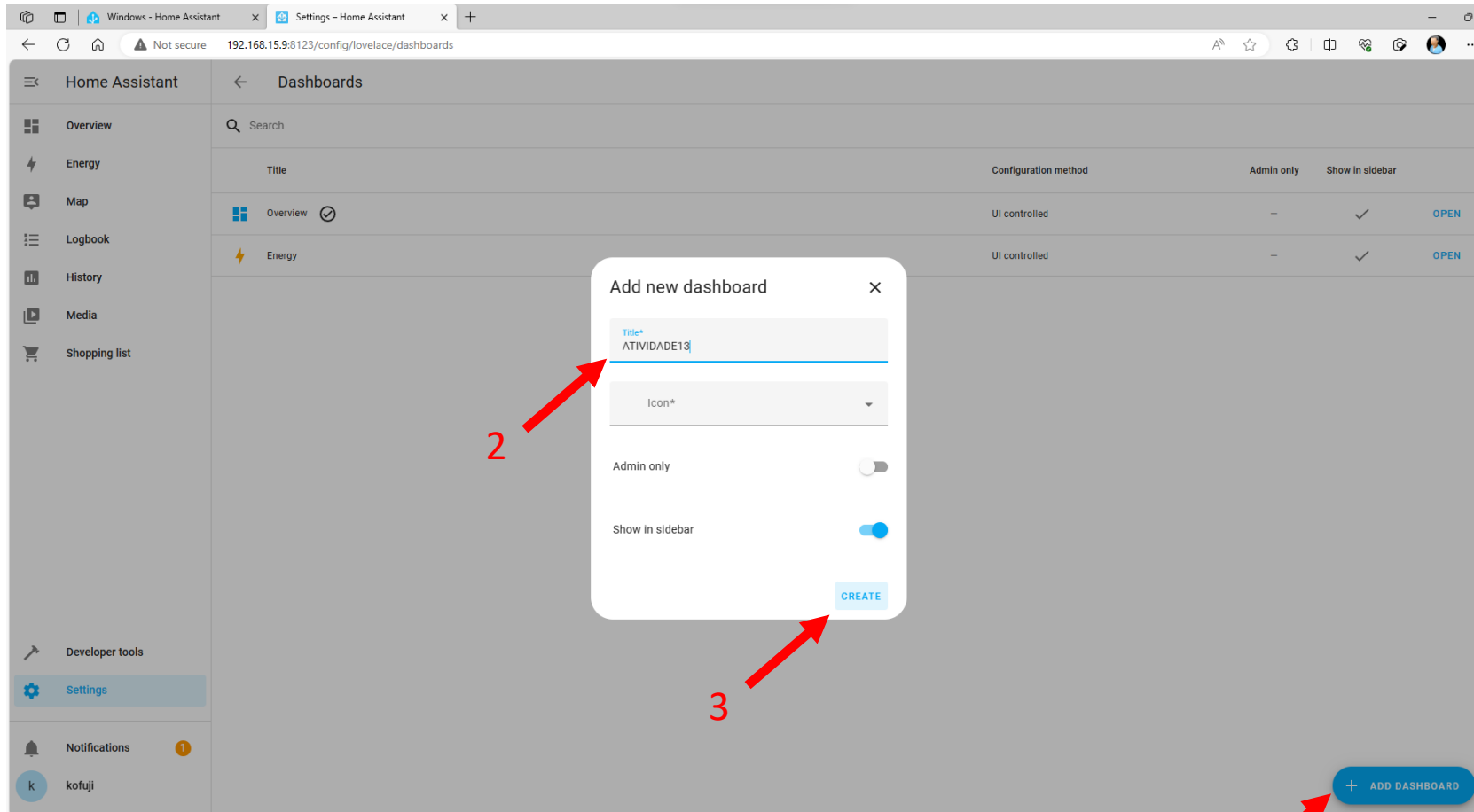
Página Principal



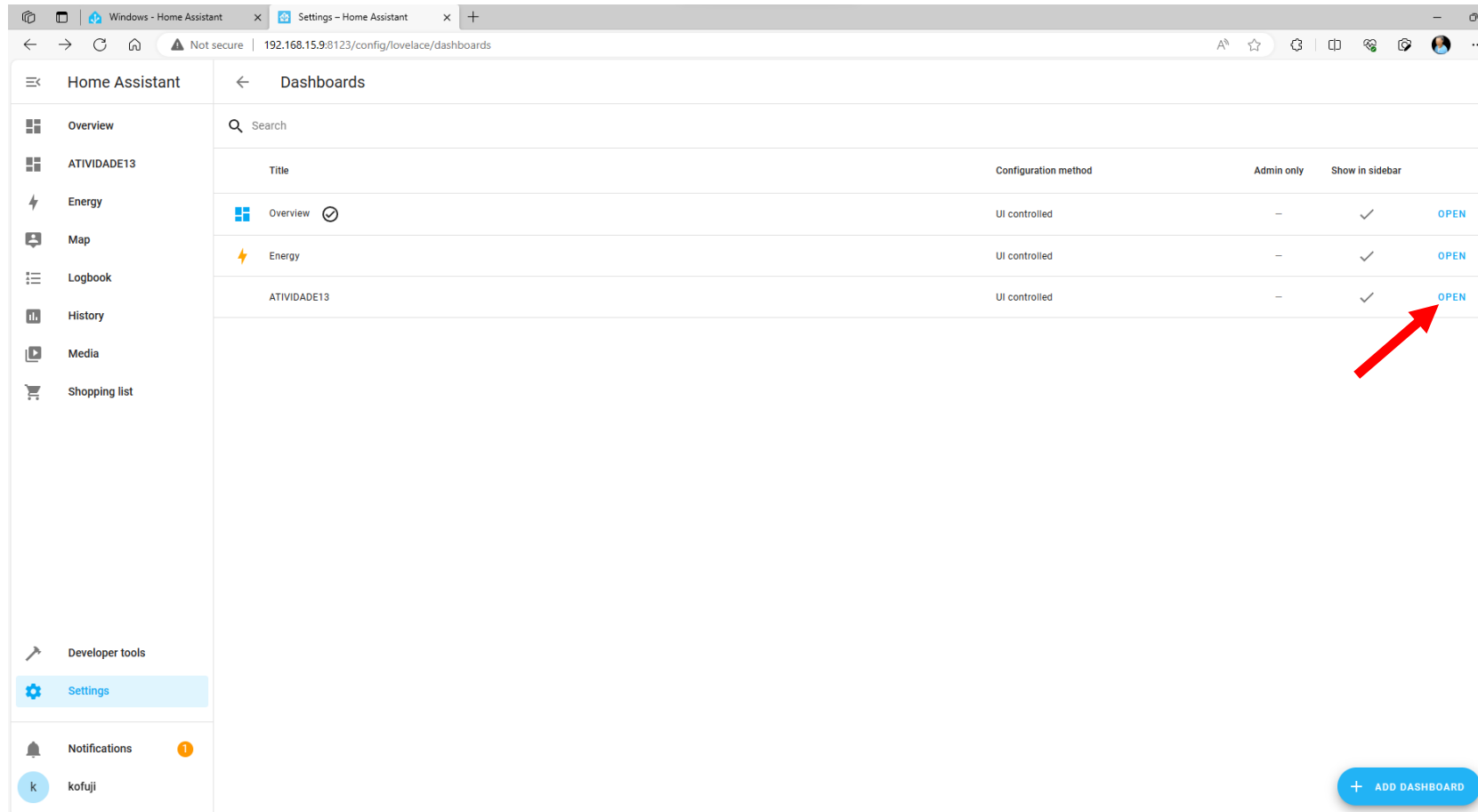
CRIAR UM DASHBOARD



NOVO DASHBOARD



EDITE O DASHBOARD CRIADO

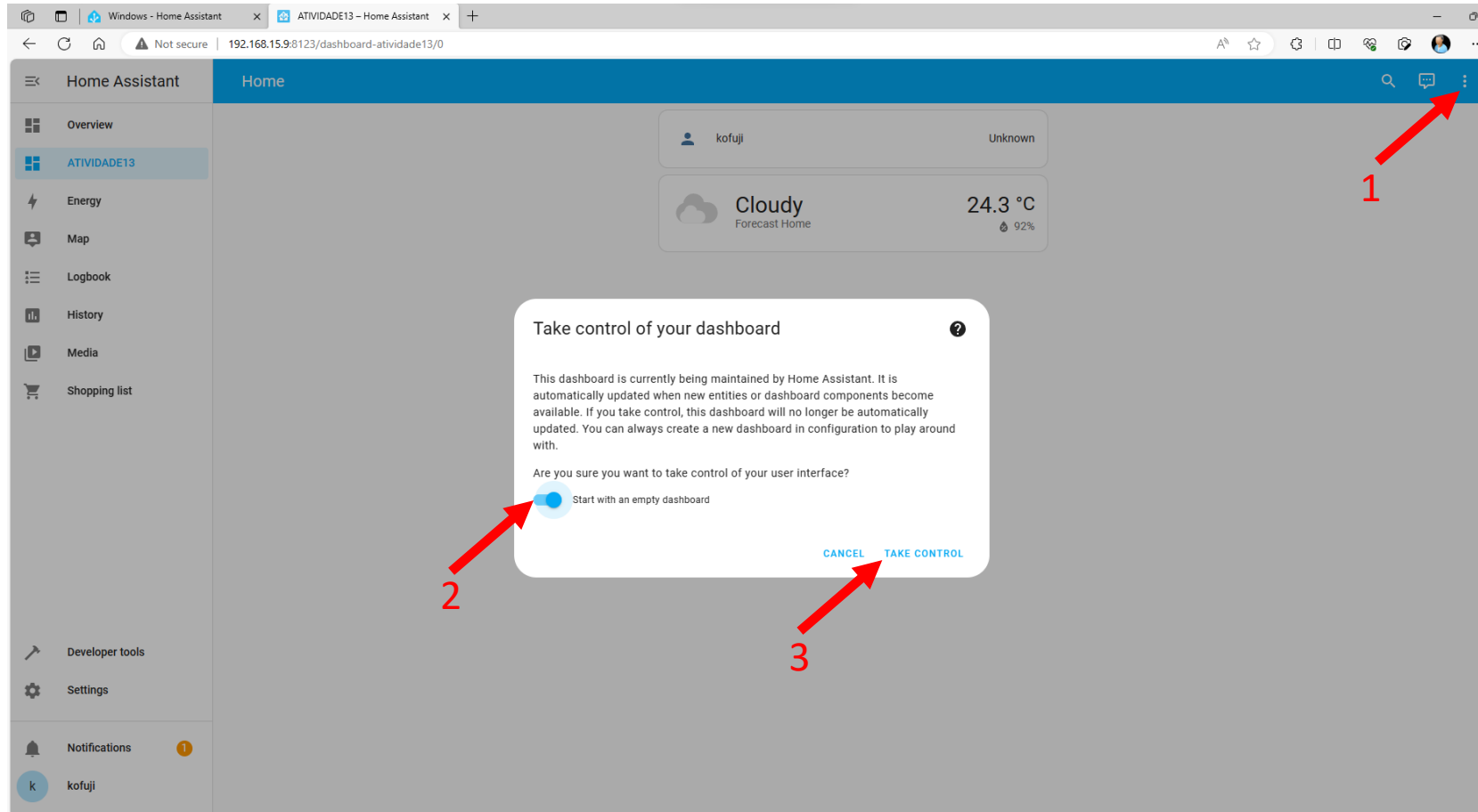


The screenshot displays the Home Assistant Settings interface for managing dashboards. The left sidebar contains navigation options: Overview, ATIVIDADE13, Energy, Map, Logbook, History, Media, Shopping list, Developer tools, Settings (highlighted), Notifications, and kofuji. The main content area is titled 'Dashboards' and features a search bar and a table of existing dashboards.

Title	Configuration method	Admin only	Show in sidebar	
Overview	UI controlled	-	✓	OPEN
Energy	UI controlled	-	✓	OPEN
ATIVIDADE13	UI controlled	-	✓	OPEN

A red arrow points to the 'OPEN' link for the 'ATIVIDADE13' dashboard. At the bottom right, there is a blue button labeled '+ ADD DASHBOARD'.

CONFIGURE O DASHBOARD



ADICIONE CARDS AO DASHBOARD

The screenshot shows the Home Assistant 'Edit UI' interface. A modal window titled 'Which card would you like to add to your "Home" view?' is open, displaying a grid of card options. The modal has two tabs: 'BY CARD' (selected) and 'BY ENTITY'. A search bar is located at the top of the modal. The grid contains the following cards:

- Alarm panel**: The Alarm panel card allows you to arm and disarm your alarm control panel integrations.
- Button**: A card with a blue bookmark icon.
- Calendar**: The Calendar card displays a calendar including day, week and list views.
- Entities**: A card showing three entities: 'Sun Next dawn' (In 5 hours), 'Sun Next dusk' (In 18 hours), and 'Sun Next midnight' (In 24 hours).
- Entity**: A card showing one entity: 'Sun Next dawn' (September 26, 2023 at 5:29 A.).
- Gauge**: The Gauge card is a basic card that allows visually seeing sensor data.
- Glance**: A card showing three entities: 'Sun Next dawn' (In 5 hours), 'Sun Next dusk' (In 18 hours), and 'Sun Next midnight' (In 24 hours).
- History graph**: A card showing a graph for 'Sun' with a time axis from 1:00 AM to 6:00 PM on Sep 25.
- Statistics graph**: The Statistics graph card allows you to display a graph of the statistics for each of the entities listed.
- Statistic**: A card with no visible content.
- Humidifier**: A card with no visible content.
- Light**: A card with no visible content.

At the bottom right of the modal, there is a 'CANCEL' button and a blue '+ ADD CARD' button. A red arrow points to the '+ ADD CARD' button.

BOM TRABALHO