TECHNICAL NOTE 114 - EXTERNAL

PRD10646 ACT800

Can be forwarded to customers

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1 UNIFI ANTENNA CONFIGURATION

1.1 OVERVIEW

This procedure describes the configuration of the ACT800 UniFi antenna.

REQUIRED MATERIAL:

- UNIFI Antena
- Source POE
- RJ45 network cable (cable must be point-to-point)
- RJ45 network cable
- Computer with Ethernet and Wi-Fi network interface

1.1.1 INSTALLING UNIFI CONTROLLER

- Download the Unifi program from the "ui.com" website
- (https://www.ui.com/download/unifi/unifi-ap-ac-pro)
- Install the downloaded program. (Install as Administrator)
- After installation, a page with program information will open
- Select the option "Launch a Browser to Manage the Network"

Figure 1 – Activating Controller

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- When you click on the informed option, the program will open a web page
- The page will be blocked, to unlock you must click on "advanced"

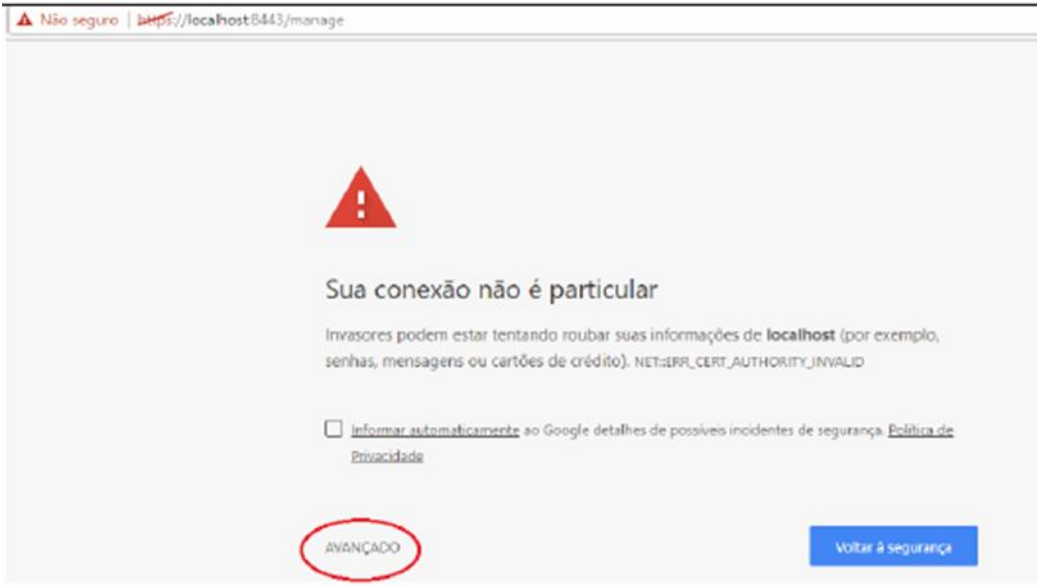

Figure 2 – Web Page

- Clicking on advanced will show a message stating that the server was unable to prove that it is localhost
- To proceed click on "go to localhost (unsafe)"

Figure 3 – Insecure connection

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- Will open a configuration page (Welcome)
- ➢ Set the "country (select your country)" and "time zone (select your time zone)"
- Click "Next"

Figure 4 – Controller Configuration

- In the next tab that opens (Discover), click "Next" again

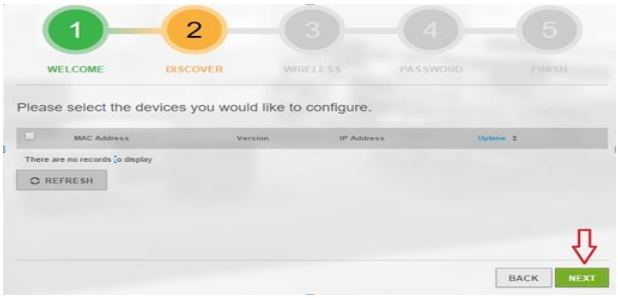

Figure 5 – Controller Configuration

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- In the "Wireless" tab
- Fill in the "Secure SSID (user) and Security Key (password)" for the Unifi antenna (this information can be changed later)
- Click "Next"

Figure 6 – Controller Configuration

- In the "Password" tab, we configure access to the controller

VERY ATTENTION IN THIS PART:

If forgotten, the program will have to be reinstalled. So to avoid any problem, use the pattern informed in this Technical Note.

- Fill in the "Secure SSID (user) and Security Key (password)", with the following data:
- **Secure SSID: actia**
- **Security Key: actia555verde**
- Click on "Next"

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Figure 7 – Controller Configuration

- In the "Finish" tab:
- Confirm that the SSID and admin user are correct, as per previous steps.
- Click on "Finish".

Figure 8 – Controller Configuration

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- It will open the program's initial screen, requesting the user and password generated previously.
- If the previous guidance was followed, fill in as below:
- **User**: actia
- **Password:** actia555verde
- Click on "Login"

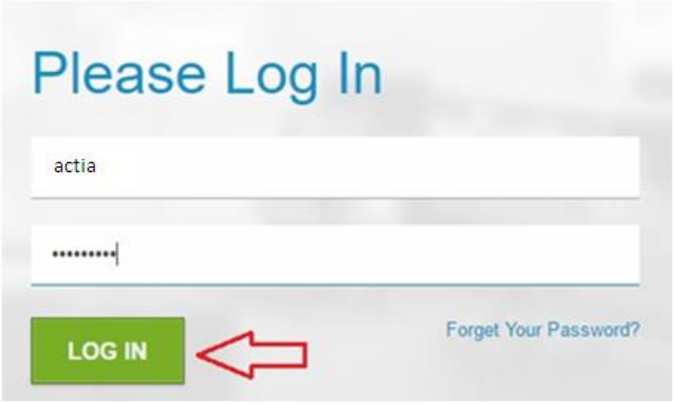

Figure 9 – Controller Login Screen

1.1.2 INSTALLING THE UNIFI ANTENNA

- Connect an RJ45 cable to the "MAIN" input of the antenna and the other end to the "POE" input of the source. (Use point-to-point cable)

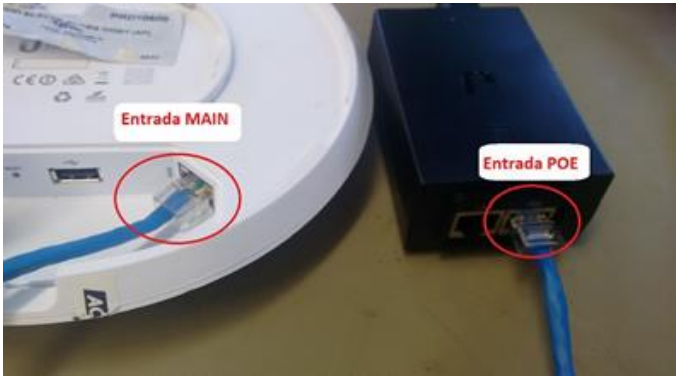

Figure 10 – Antenna Installation

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- Connect an RJ45 cable to the "LAN" input of the power supply and the other end to the Ethernet input of the computer

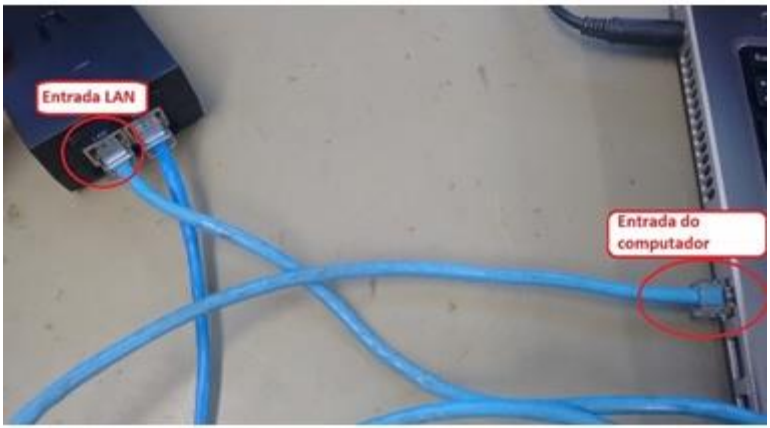

Figure 11 – Installation of POE

1.1.3 COMPUTER CONFIGURATION

- Connect the 24V power cable to the router
- Connect one end of the network cable (RJ45) to the Router's LAN port and the other end of the network cable to the computer
- To configure fixed IP on the computer, go to control panel and click "Network and Internet"

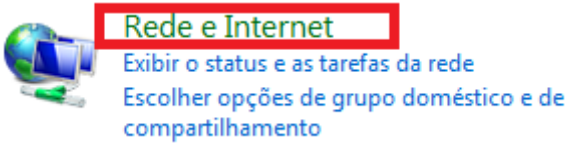

Figure 12 – Network and Internet

- Under "network and internet", click on "Network and Sharing Center"

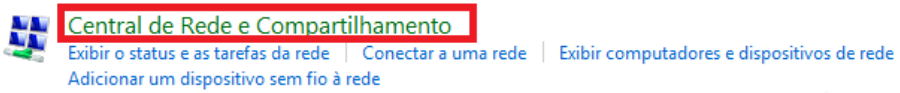

Figure 13 – Net and Sharing Central

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- Within the network and sharing center click on "Local Connection"

Figure 14 – Local connection

- Will open a new window, click on "Properties"

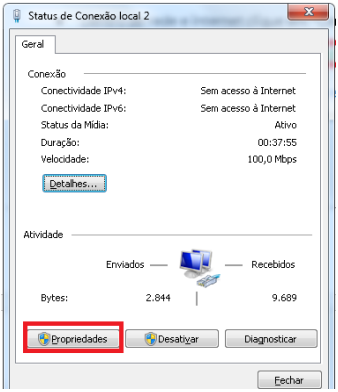

Figure 15 – Local Area Connection Status

- In the window that opens, drag the scroll bar down until "TCP/IP Protocol version 4 (TCP/IPv4)" appears, click on this option to select it and then click on properties

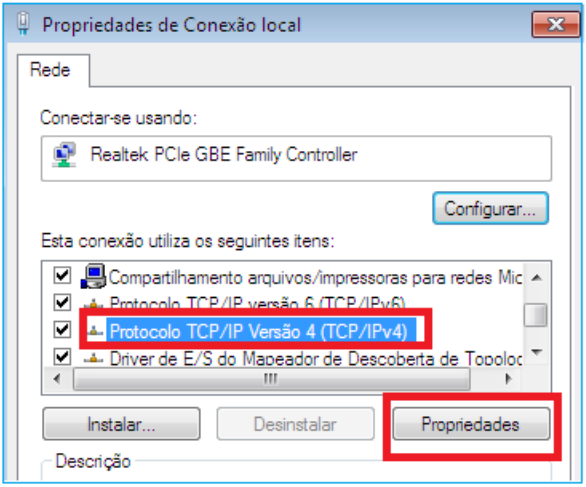

Figure 16 – Local Area Connection Properties

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- In the window that opens, check the option "Use the following IP address", in the IP Address field type "192.168.1.122" and in the "Subnet Mask" field type "255.255.255.0".

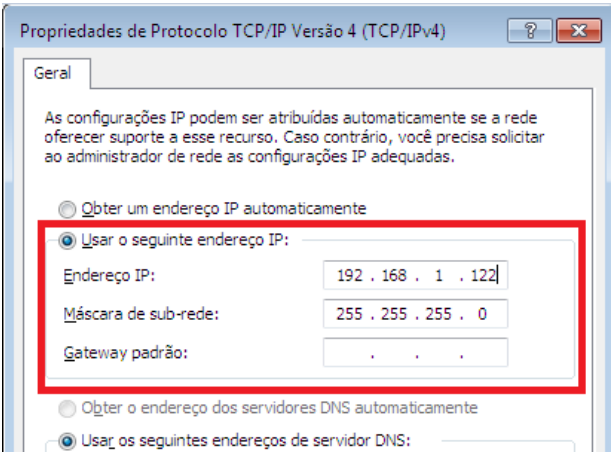

Figure 17 – TCP/IP Protocol Properties

- Click "OK" on this screen for it to close

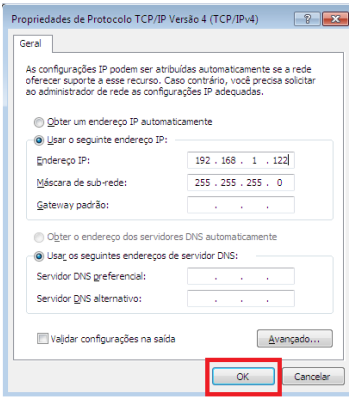

Figure 18 – TCP/IP Protocol Properties

- Close all windows

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1.1.4 CONFIGURING THE UNIFI ANTENNA

- After connecting the antenna, go back to the page on the computer, as shown in the screen below

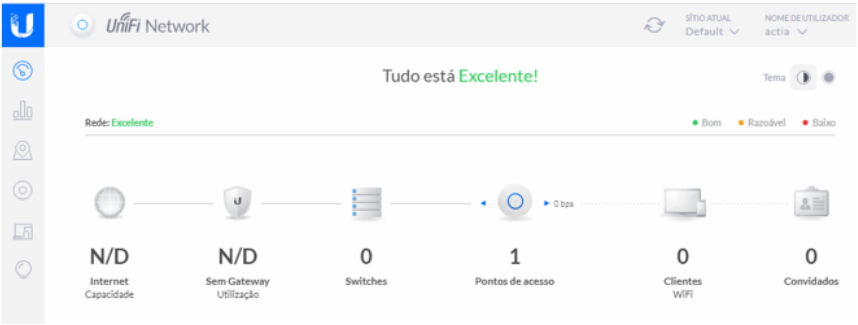

Figure 19 – Controller Home Screen

- Click on "Devices"

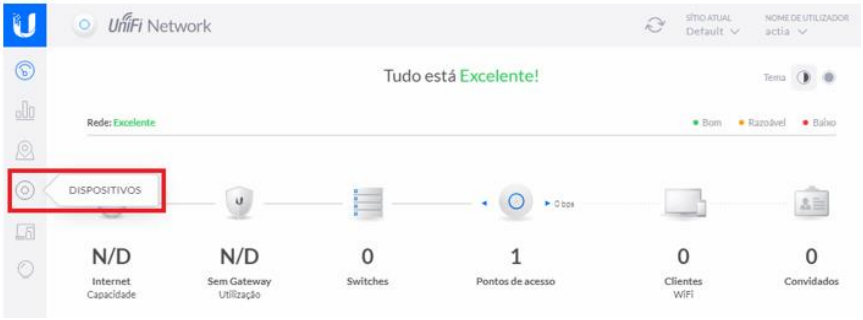

Figure 20 – Controller Home Screen

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- Click on "Definitions"

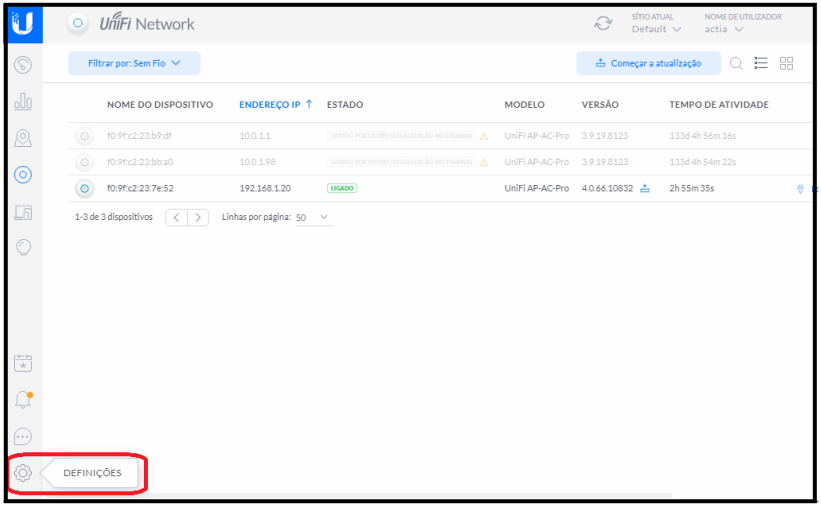

Figure 21 – Controller Settings Screen

- Click on "Preferences"
- Click on "Advanced"
- In the "Refresh Rate" field, change from "2 min" to "15 Sec"

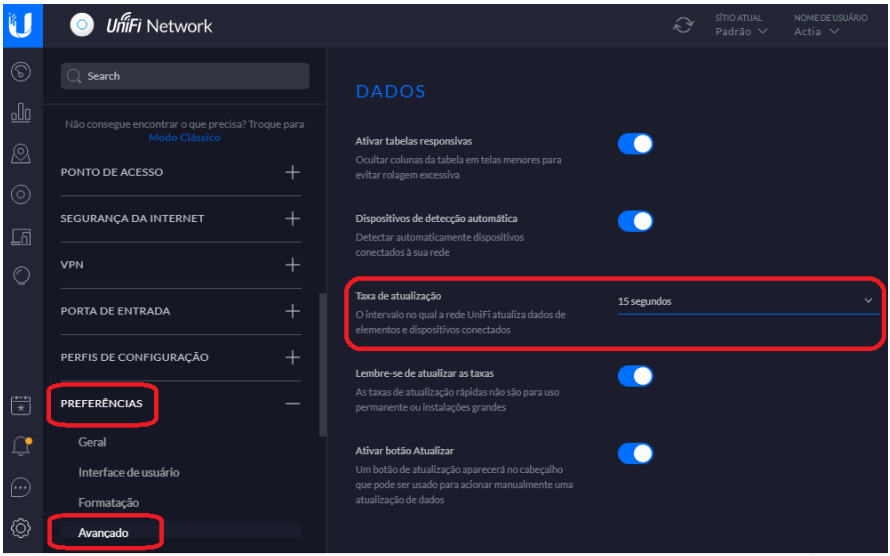

Figure 22 – Controller Settings Screen

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- Click on "Devices"

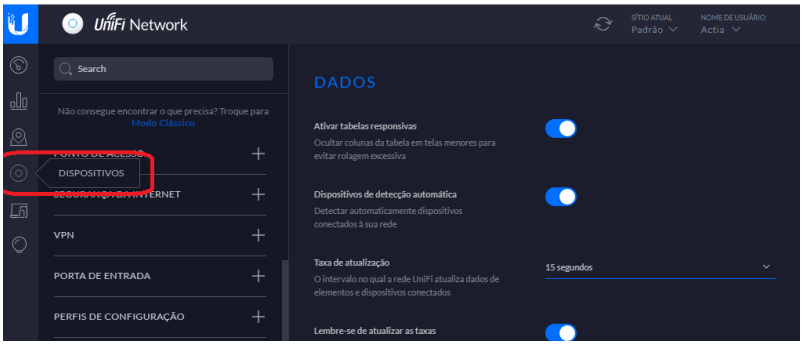

Figure 23 – Controller Settings Screen

- Note that the antenna to be configured will have the connected message in green

Figure 24 – Controller Settings Screen

- If it is not like the image above, check again the steps since the beginning of this technical note, but if the problem persists, follow the steps in item 2 (Adoption of the antenna via SHH).

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2 ADOPTION OF ANTENNA VIA SHH

2.1 OVERVIEW

This procedure describes a method for adopting the UniFi antenna, when the controller cannot do the procedure, described in item 1.

REQUIRED MATERIAL:

- UNIFI Antena
- Source POE
- RJ45 network cable (cable must be point-to-point)
- RJ45 network cable
- Computer with Ethernet and Wi-Fi network interface
- PUTTY Software

2.1.1 DOWNLOADING SOFTWARE

- Download the PUTTY Software from this Link https://www.chiark.greenend.org.uk/~sgtatham/putty/releases/0.73.html
- This software has no installation process, after downloading the program, just run it.

2.1.2 INSTALLATION OF THE UNIFI ANTENNA

- Connect an RJ45 cable to the "MAIN" input of the antenna and the other end to the "POE" input of the source. (Use point-to-point cable)

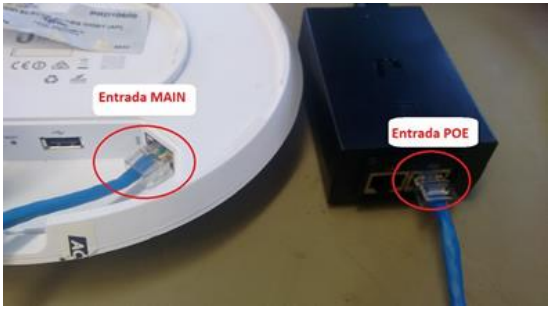

Figure 1 – Antenna Installation

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- Connect an RJ45 cable to the "LAN" input of the power supply and the other end to the Ethernet input of the computer

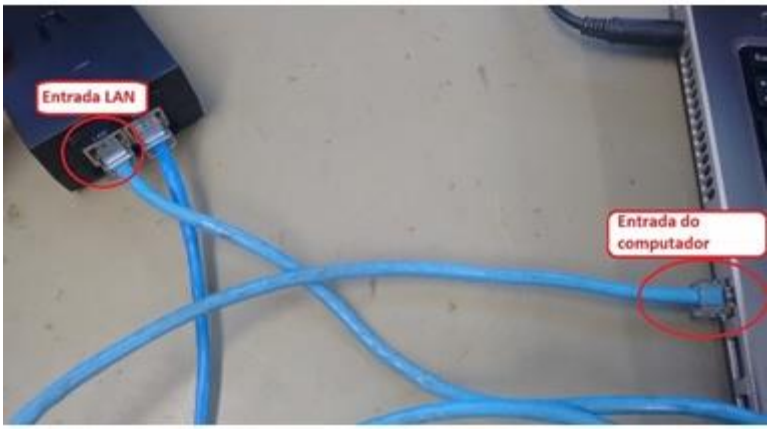

Figure 2 – POE Installation

2.1.3 COMPUTER CONFIGURATION

- Connect the 24V power cable to the router
- Connect one end of the network cable (RJ45) to the Router's LAN port and the other end of the network cable to the computer
- To configure fixed IP on the computer, go to control panel and click "Network and Internet"
- Under "network and internet", click on "Network and Sharing Center"

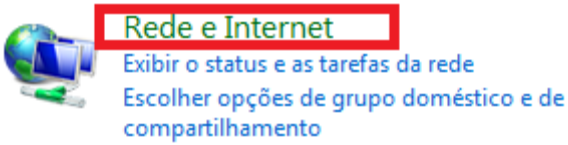

Figure 3– Network and Internet

- Under "network and internet", click on "Network and Sharing Center"

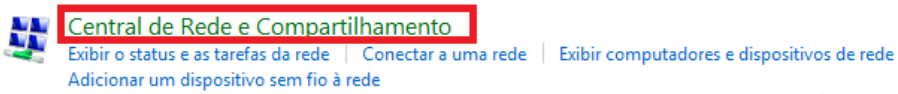

Figure 4 – Central de Rede e Compartilhamento

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- Within the network and sharing center click on "Local Connection"

Figure 5 – Local Connection

- Will open a new window, click on "Properties"

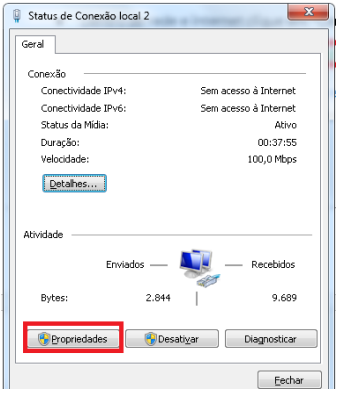

Figure 6 – Local Area Connection Status

- In the window that opens, drag the scroll bar down until "TCP/IP Protocol version 4 (TCP/IPv4)" appears, click on this option to select it and then click on properties

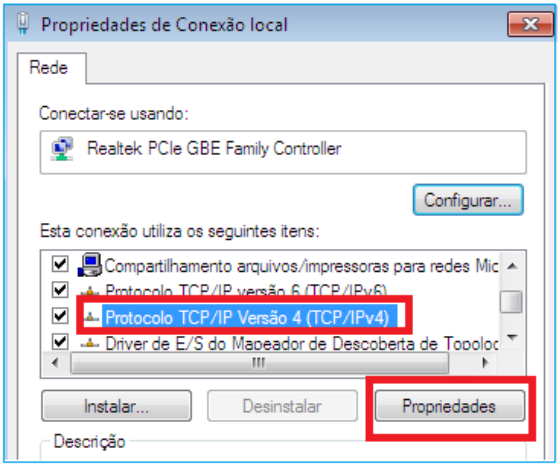

Figure 7 – Local Area Connection Properties

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- In the window that opens, check the option "Use the following IP address", in the IP Address field type "192.168.1.122", in the "Subnet Mask" field type "255.255.255.0" and in the "Default Gateway" field type "192.168.1.1"

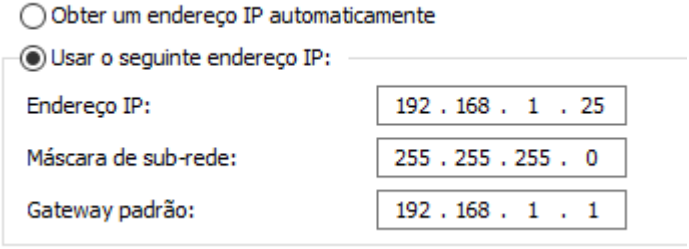

Figure 8 – TCP/IP protocol properties

- Click "OK" on this screen for it to close

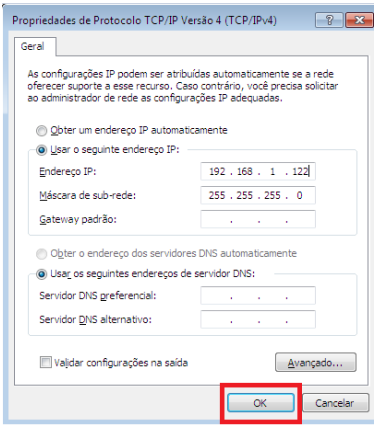

Figure 9 – TCP/IP Protocol Properties

- Close all windows

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2.1.4 ACCESSING ANTENNA VIA SSH

- Open PUTTY and enter the IP 192.168.1.20, click on Open, as shown in the image below

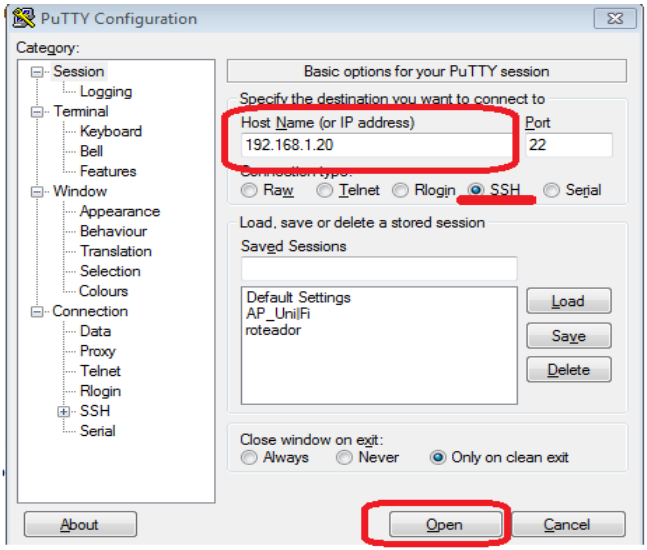

Figure 10 – PUTTY Software

- The screen below will open, click on "YES"

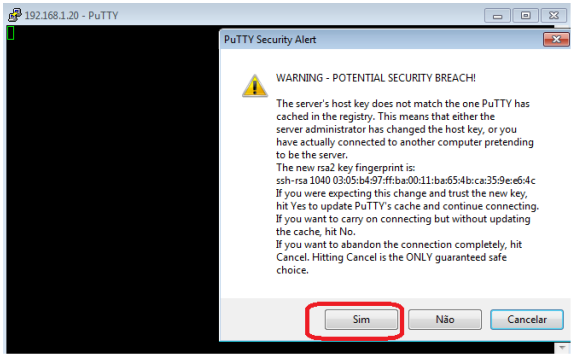

Figure 11 – PUTTY Software

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- Will open the initial screen of PUTTY, requesting LOGIN

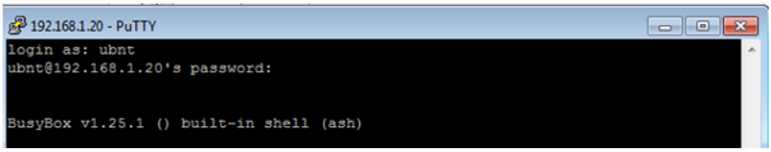

Figure 12 – PUTTY Software

- Type ubnt and press ENTER
- You will be asked for the password, type ubnt and press ENTER
- Will open the UniFi home screen

Figure 13 – PUTTY login screen

- After the image above type the following command
  set-inform http://192.168.1.25:8080/inform

- Press "ENTER"

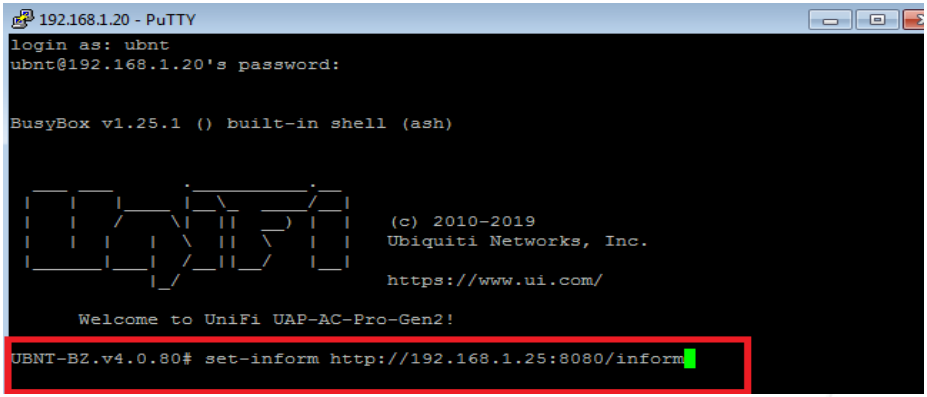

Figure 14 – Command Line

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- **IMPORTANT: Enter this command 5 times.**

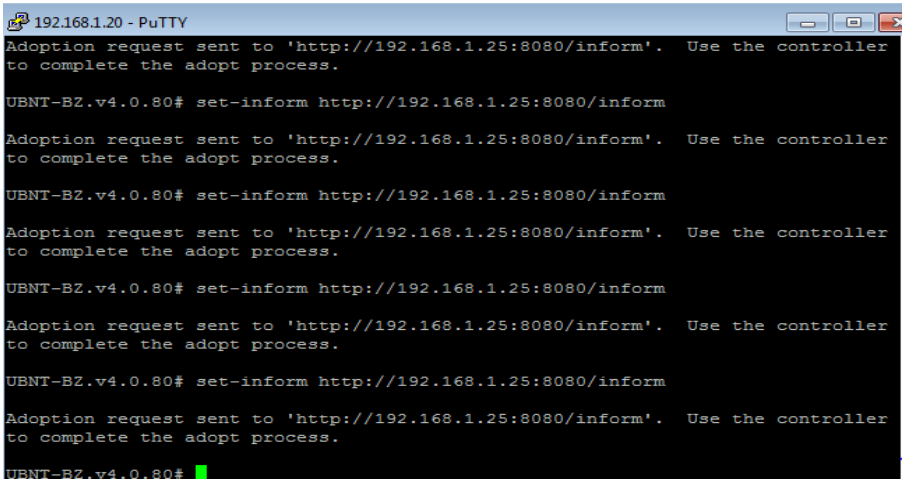

Figure 15 – Command Line

- Now go back to the CONTROLLER page and note that the antenna will be available for adoption

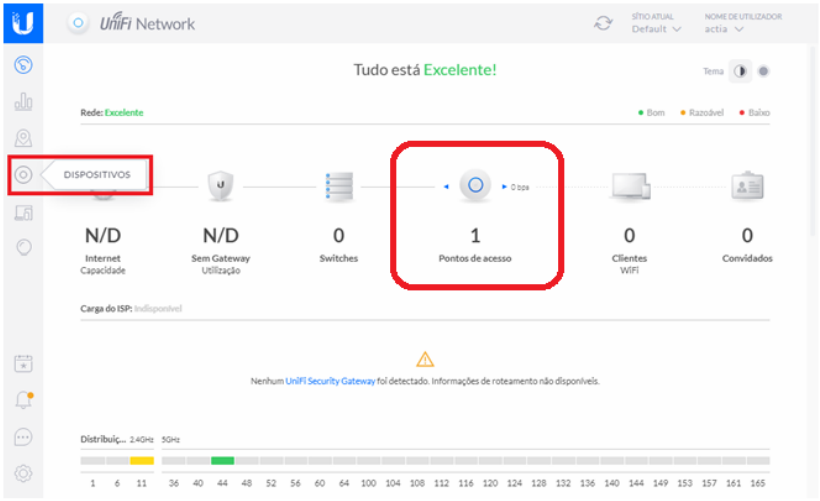

Figure 16 – Controller

- To adopt the antenna and configure it, go back to item 1 (UNIFI ANTENNA CONFIGURATION).

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3 CONTENT GENERATION

3.1 OVERVIEW

This procedure describes the method for generating content (songs, movies, etc.) from the ACT800.

3.2 NOTE

Actia do Brasil is not responsible for providing the content (films/songs). We remind you that movie piracy is a crime, pursuant to Article 184 of the Penal Code. To have your content legal, please contact FILMBANK (https://www.filmbankmedia.com/), which owns the copyright of several movie studios in Brazil.

REQUIRED MATERIAL:

- ACTIA CLIENT MANAGER Program (program provided by ACTIA, see section 5 for installation).
- Internet access.

3.2.1 GENERATING CONTENT > MOVIE

- Access the Actia Client Mgr program
- In the Login information, put the username and password provided by Actia.
- In the option "Server" put the server "vod.actiasystems.com."
- Click on Connect.

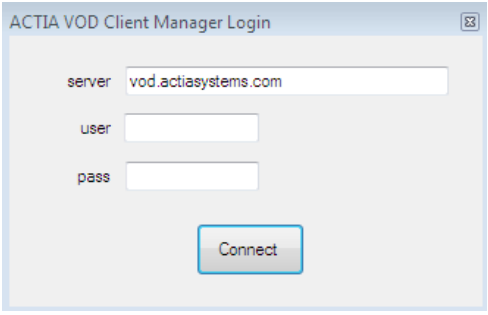

Figure 1 – Login client manager

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- Select the "Local Movies" option

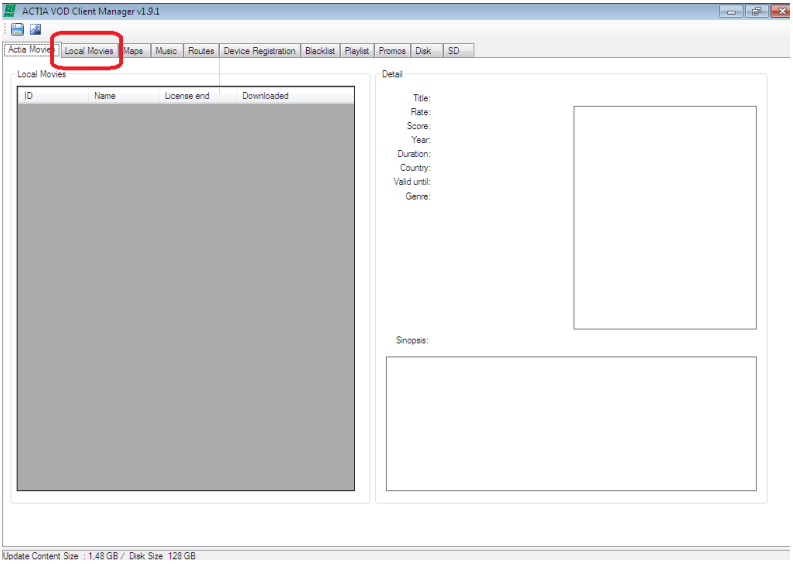

Figure 2 – Client Manager

- Click on "Add"

Figure 3 – Client Manager

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- Click on "Search film" to search synopsis, trailer, genre, etc. information.

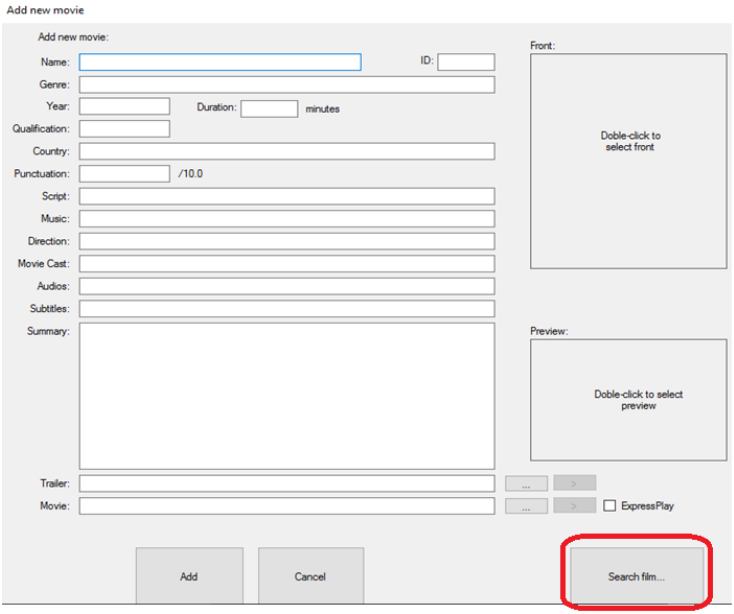

Figure 4 – Adding movie

- Enter the name of the movie you are looking for, select the desired language and click "Search".

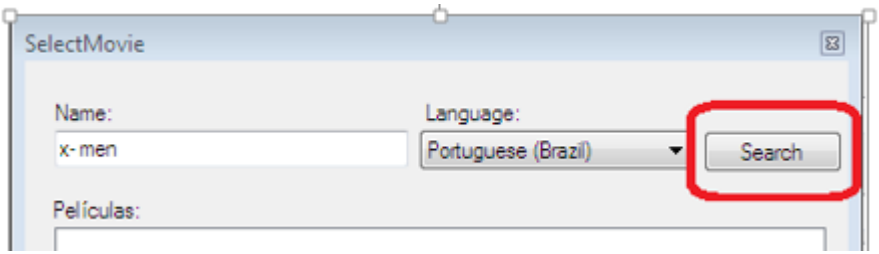

Figure 5 – Selected movie

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- Several movies with the same name may appear. Make sure the film chosen is the one you want. Click on "Accept"

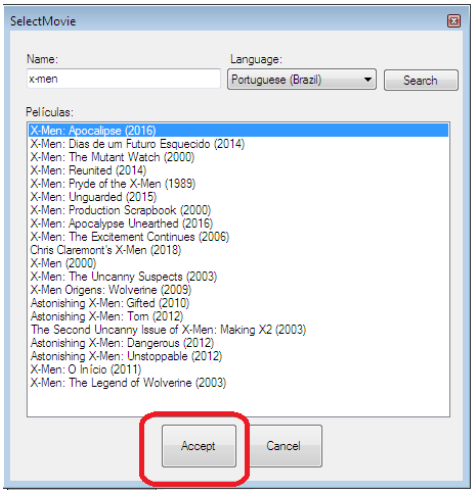

Figure 6 – Selected movie

- The movie information will be loaded.

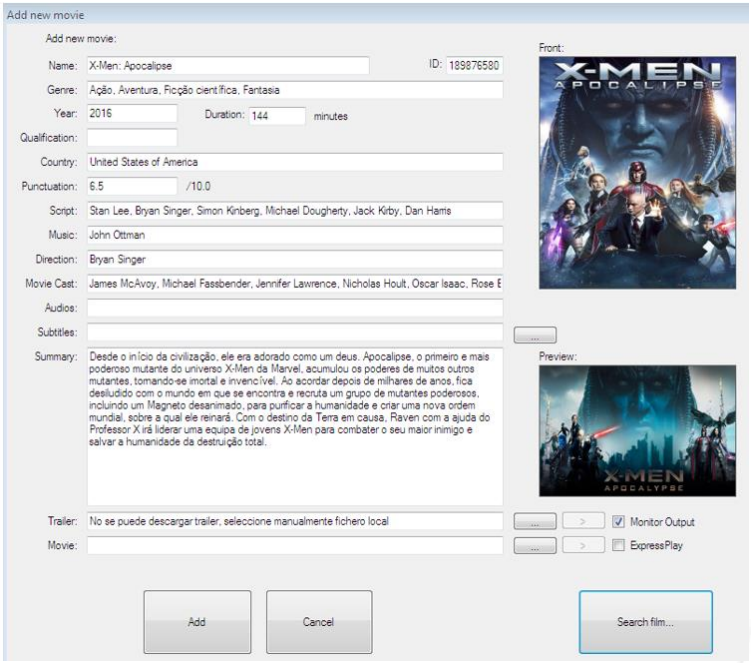

Figure 7 – Adding movie

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- If the program cannot download the trailer, you must download a trailer from youtube in MP4.
- To insert it into the program, click on the option with the three dots, then select the trailer that is in your computer's directory, already downloaded.

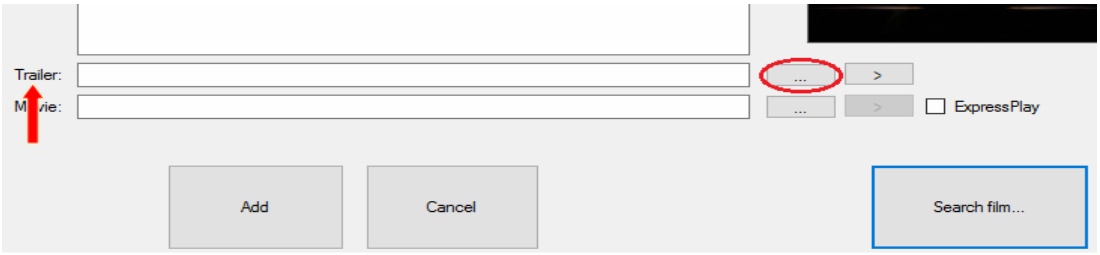

Figure 8 - Selected trailer

- To insert the movie, click on the three points of the "Movie" option

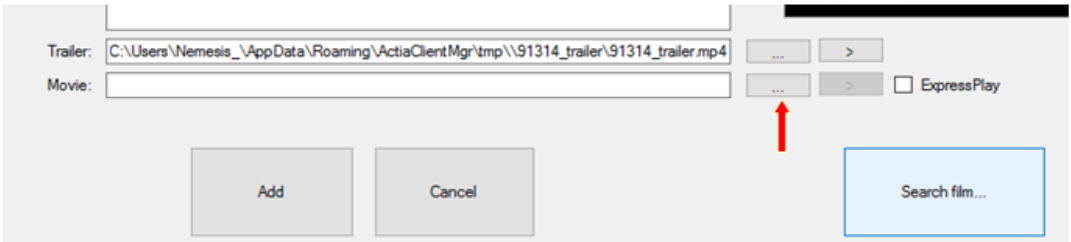

Figure 9 – Selected movie

- Search for the movie (already converted to MP4) in your computer's directory and select.
- Click "Add"

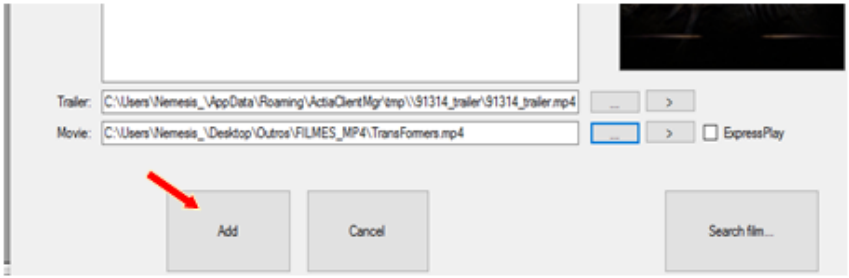

Figure 10 – Selected movie

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- Click "OK".

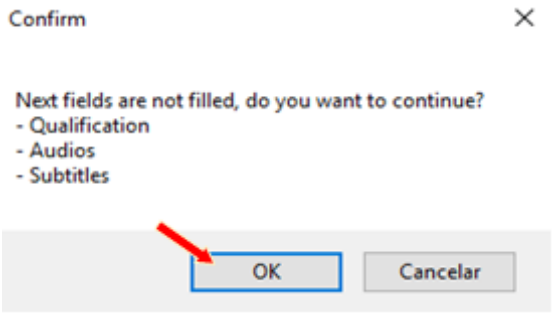

Figure 11 – Selected movie

- Then the program will start downloading the .movie file to the computer's directory, where the files generated by Actia Client Manager are located
- Once completed, it will display the message: "Progress finished satisfactonily"
- Click on "Accept"

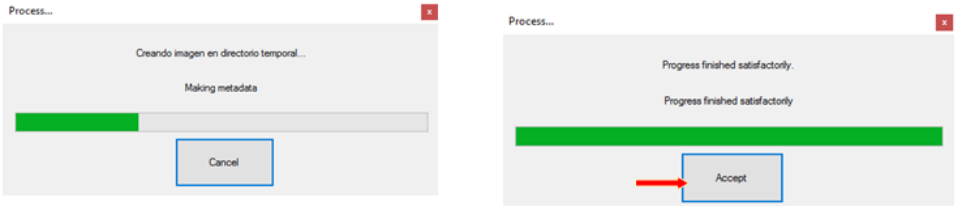

Figure 12 – Progress Bar

- Check if the movie was generated correctly (as shown in the image below).

Figure 13 – Selected movie

- Repeat this procedure for all movies to be recorded on the ACT800;

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3.2.2 RECORDING MOVIE CONTENT TO SD CARD

- Take the SD Card out of the ACT800 to insert it into the computer, then it will open a folder structure like the image below.

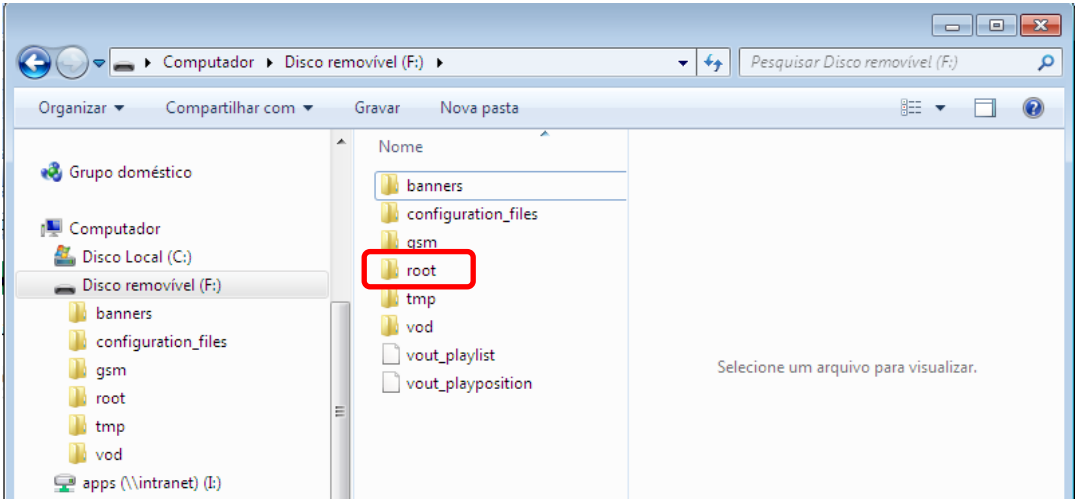

Figure 14 – SD Card

- Access the root folder (of the SD Card), leave this folder open
- Open the generated content directory folder
- This directory can be accessed via the path *C:|Users|(computer name)|AppData|Roaming|ActiaClientMgr*
- Access the "root" folder of your computer's directory
- Copy the contents of the folder, "movies" to the "content" folder of the SD Card.

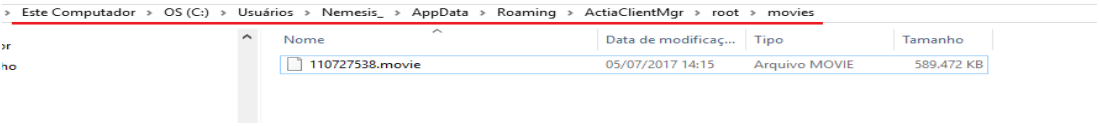

Figure 15 – Selected movie

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- The "content" folder will contain the copied movies.

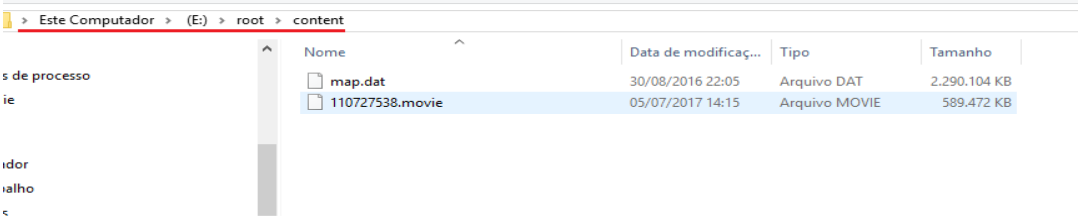

Figure 16 – Selected movie

- Remove the SD Card from the computer and insert it into the ACT800, ***remembering that the ACT800 must be turned off***
- Turn on the ACT800 after inserting the SD Card
- Perform the function test with the ACTIA SYSTEMS app (download from Play/Apple Store on your smartphone)

3.2.3 GENERATING CONTENT > MUSIC

- Access the Actia Client Manager Program
  In the Login information, put the "username" and "password" ***provided by Actia.***
- In the option "Server" put the server "vod.actiasystems.com."
- Click "Connect".

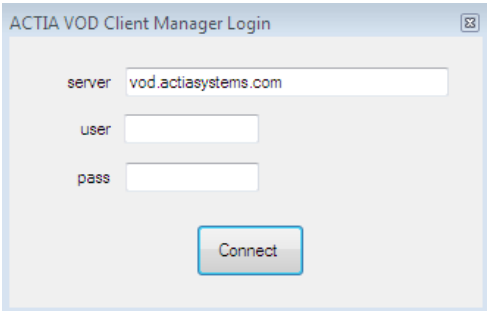

Figure 17 – Client Manager login

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- Select the "Music" option and click "Add"

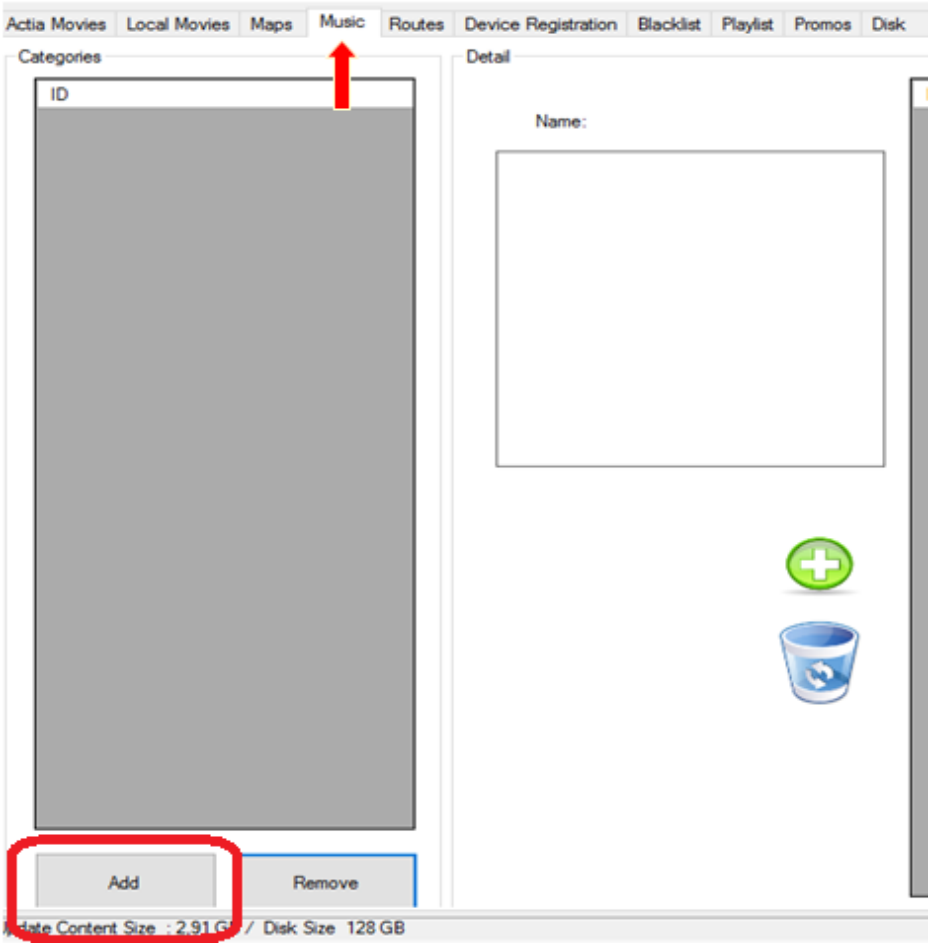

Figure 18 – Selecting music

- In the option "Name", you must put a name for the music folder; example: ***ROCK***
- Click on "Accept".

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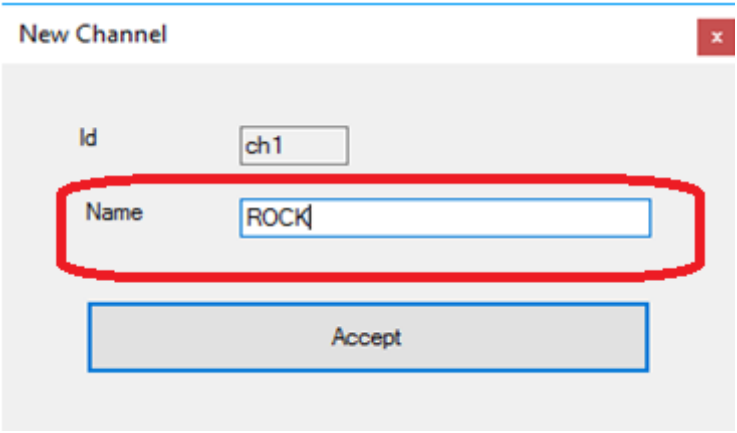

Figure 19 – Naming folder

- Choose an image by double clicking on the square in the center of the screen.

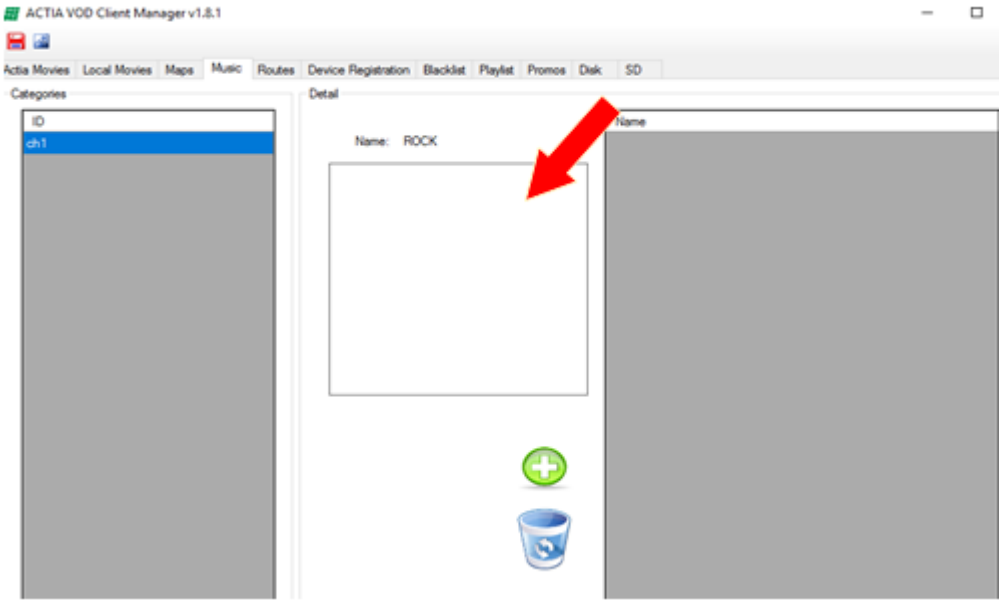

Figure 20 – Selecting Image

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- Search the computer for the image (JPG) corresponding to the created folder.

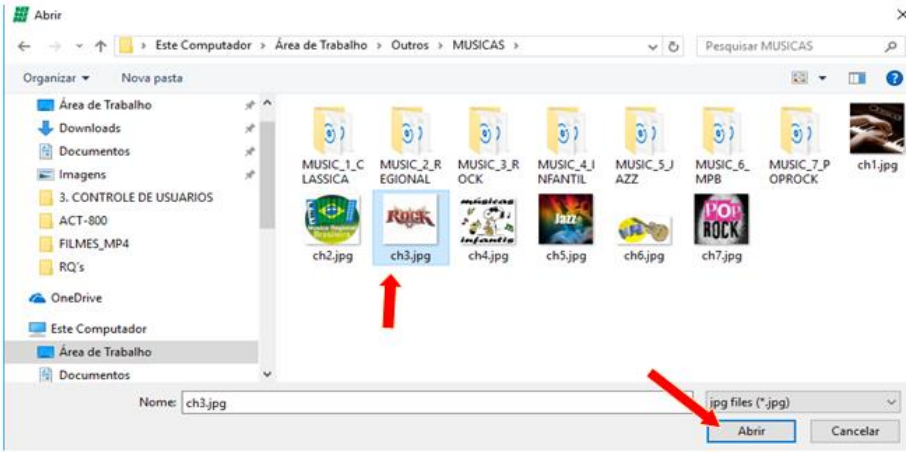

Figure 21 – selecting image

- Click on the green plus (+) icon

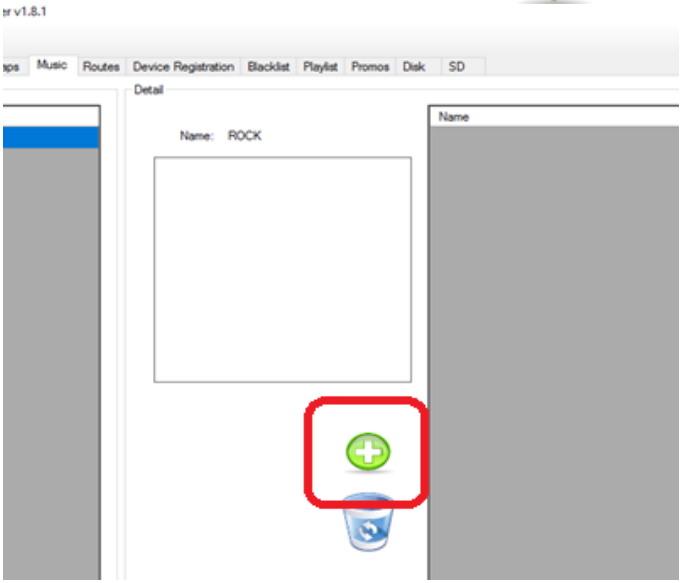

Figure 22 - selecting songs

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- Browse the songs on your computer and click "Open"
- Can select multiple songs at the same time

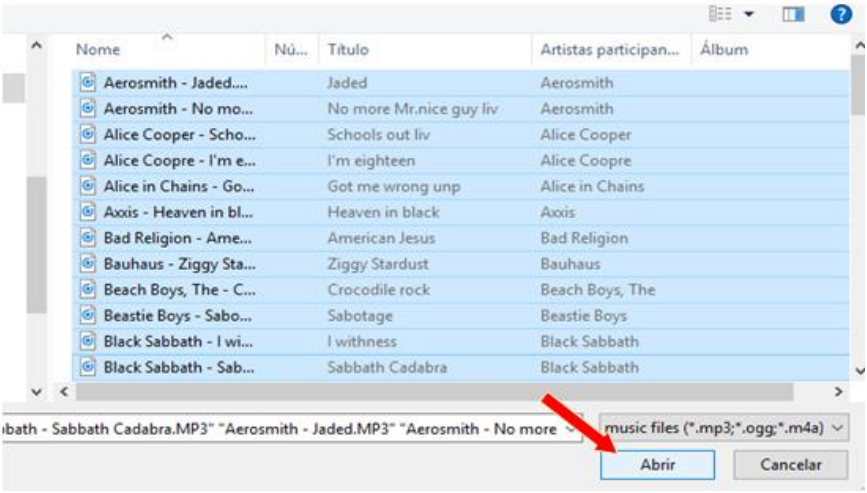

Figure 23 - selecting songs

- Check if the songs were copied correctly.

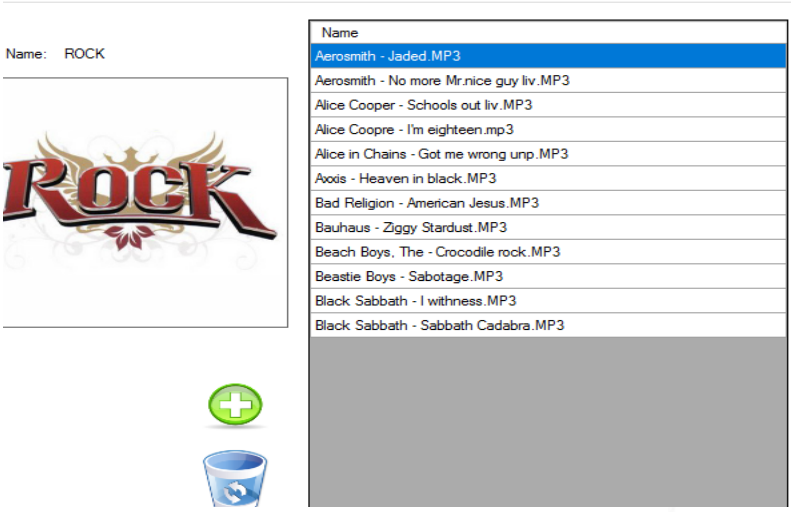

Figure 24 - selecting songs

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- You can create up to 8 music folders.
- After creating all the music folders, click on "Save" (as shown in the arrow below)

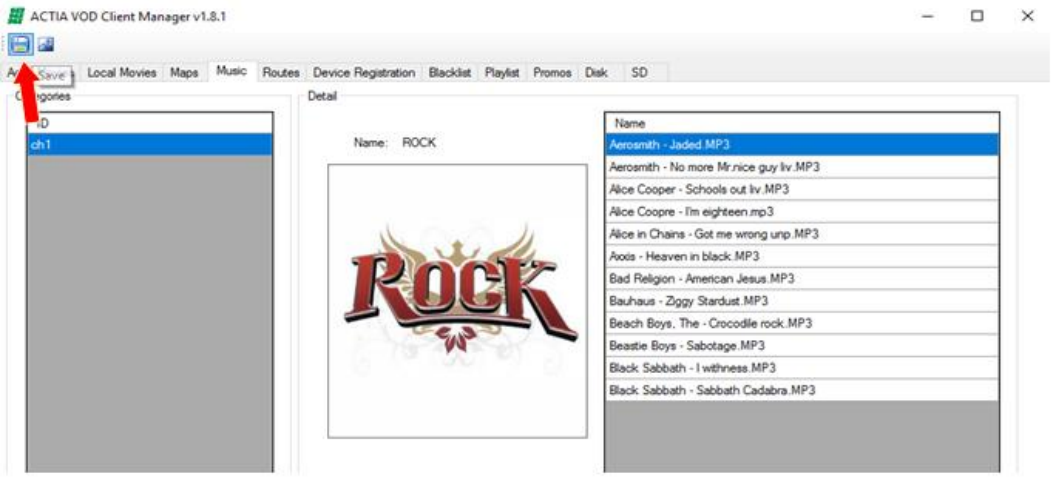

Figure 25 - selecting songs

3.2.4 RECORDING MUSIC CONTENT TO SD CARD

- Take the SD Card out of the ACT800 to insert it into the computer, then it will open a folder structure like the image below.

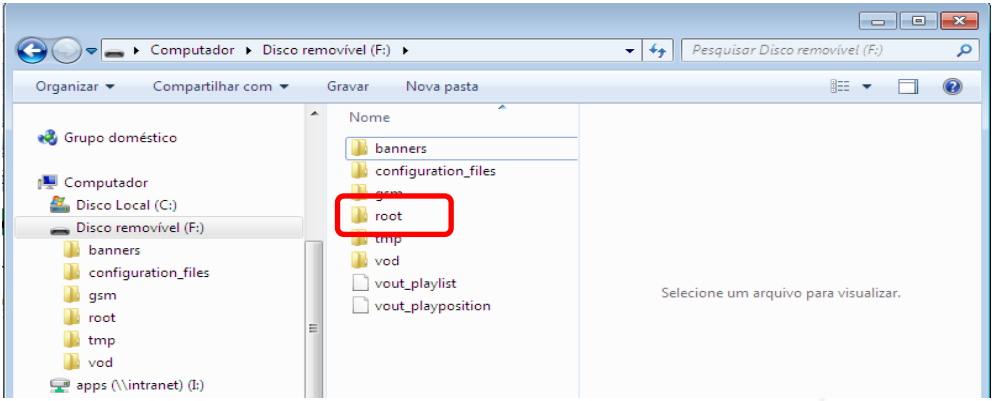

Figure 26 – SD Card

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- Access the root folder, leave this folder open
- Open the generated content directory folder
- This directory can be accessed via the path C:\Users\(computer name)\AppData\Roaming\ActiaClientMgr
- Access the "root" folder of your computer's directory
- Copy the contents of the "music" folder to the "music" folder **of the SD Card.**

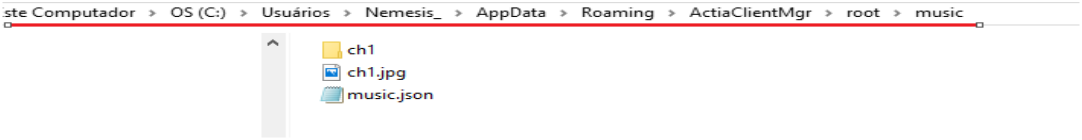

Figure 27 – Computer folder

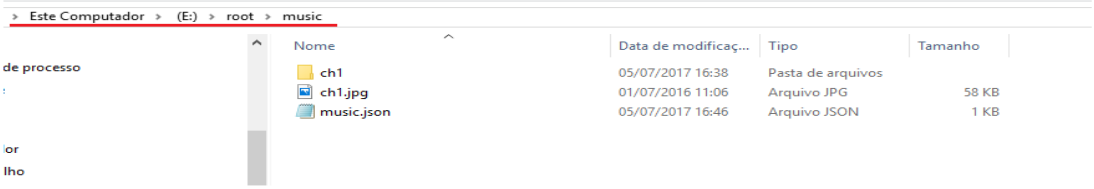

Figure 28 – SD Card

3.2.5 GENERATING CONTENT > MAPS

- Access the Actia Client Manager program
- In the Login information, put the username and password provided by Actia.
- In the option "Server" put the server "vod.actiasystems.com."
- Click "Connect".

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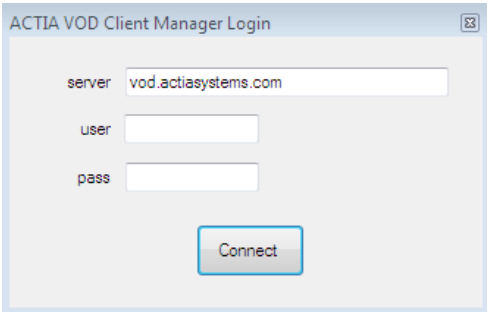

Figure 29 – Login client manager

- Select the "Maps" option and click on the "Select" icon, corresponding to the map you want to download (example Brazil).

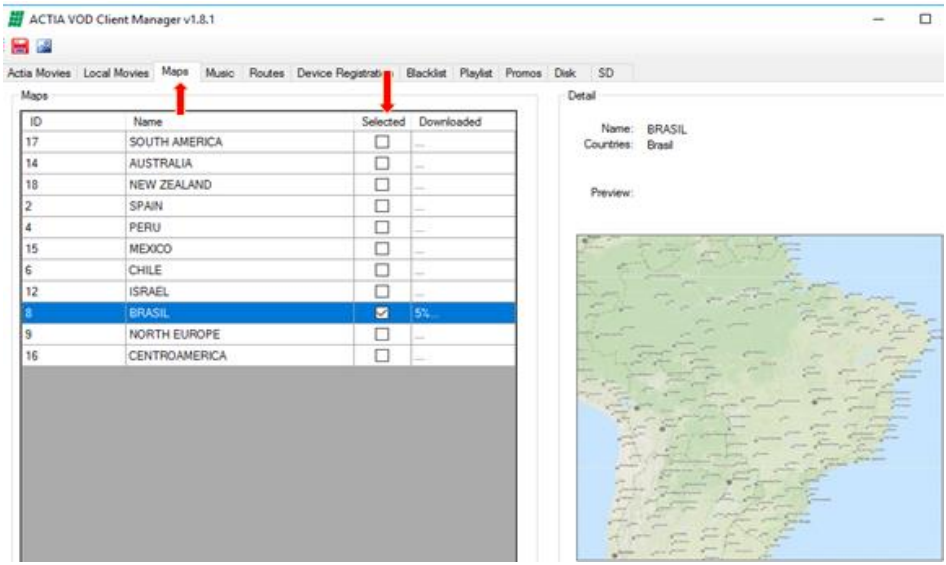

Figure 30 – Selecting Map

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- Expect to reach 100% in the "Download" option

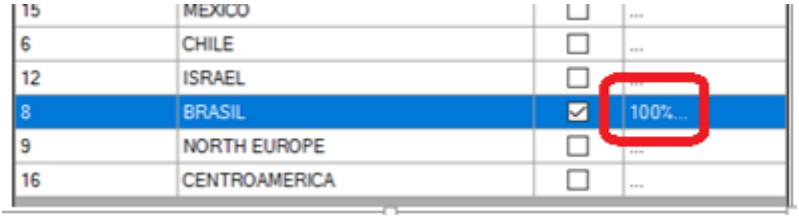

Figure 31 – Selecting Map

- Click on "Save" (icon in red)

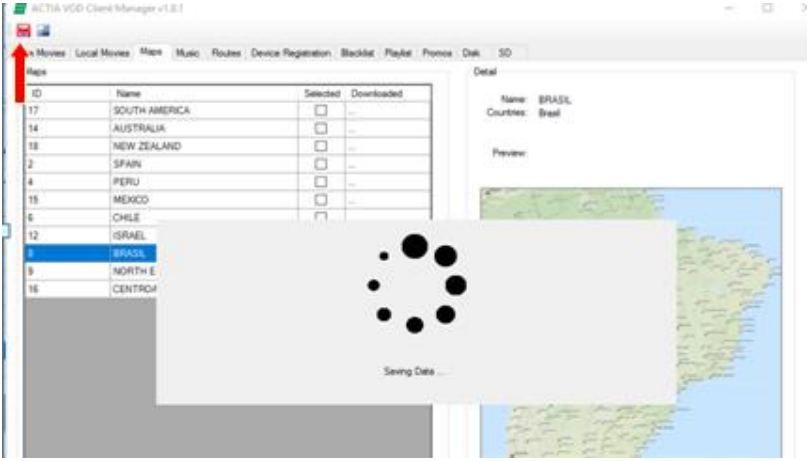

Figure 32 – Selecting Mapa

- As the map takes up a lot of space, as it has a large memory size, it may take a few hours to fully load the map.

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3.2.6 RECORDING CONTENT TO SD CARD

- Take the SD Card out of the ACT800 to insert it into the computer, then it will open a folder structure like the image below.

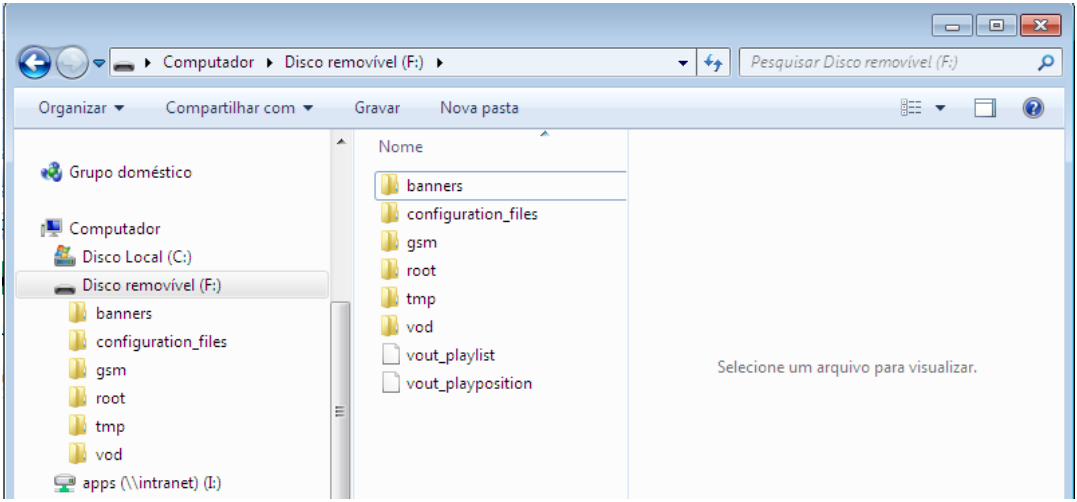

Figure 33 – SD Card

- Access the root folder, leave this folder open
- Open the generated content directory folder
- This directory can be accessed via the path C:\Users\(computer name)\AppData\Roaming\ActiaClientMgr
- Access the "root" folder of your computer's directory
- Copy the contents of the "maps" folder to the "content" folder of the SD Card.

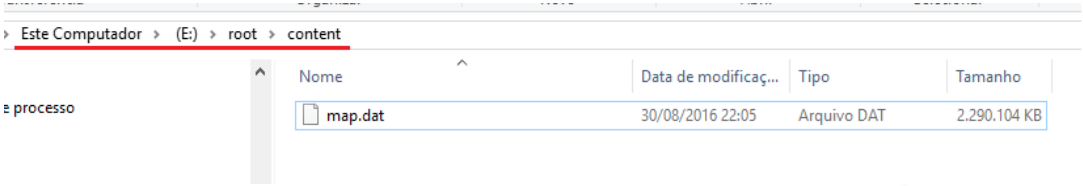

Figure 34 – Computer folder

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4 GENERATION OF PROMOTIONAL VIDEO

4.1 OVERVIEW

This procedure describes the method for using the Promotional Video feature.

REQUIRED MATERIAL:

- Computer with Ethernet network interface
- Network cable (RJ45)
- Power supply (12/24V)
- ACT800 VOD Server
- Notepad++ Software
- Handbrake Software

4.1.1 SETTING THE VIDEO

First we need to adjust the promotional video in the correct settings to work on the ACT800, to do this, follow the steps below:

- Download Handbrake Software, see section 5 (Programs)
- Open the Handbrake program
- Select "File"

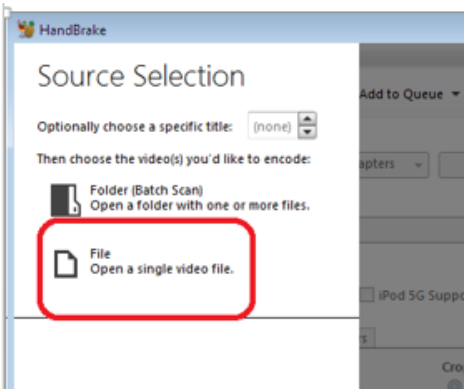

Figure 1 – Handbrake

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- A search window will open, browse and select the original file and click open.

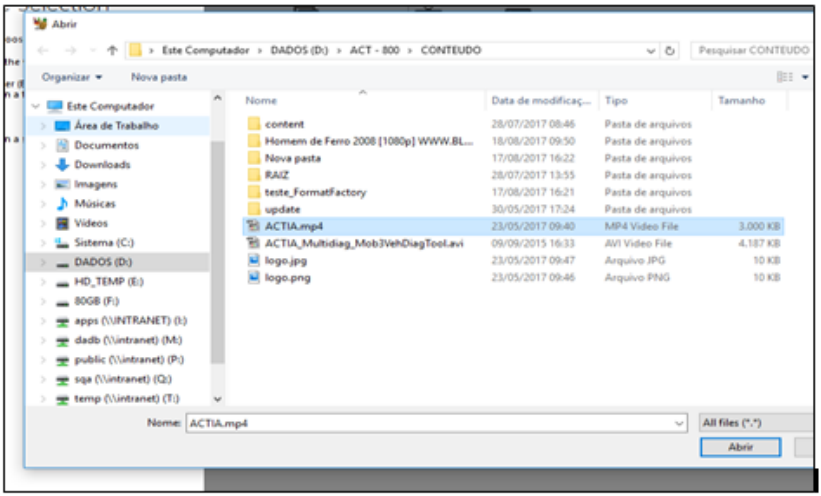

Figure 2 – Computer folder

- Click on the "**Browser**" button corresponding to the "**Destination**" field
- After, choose the location where the file will be saved and name the file that will be generated.

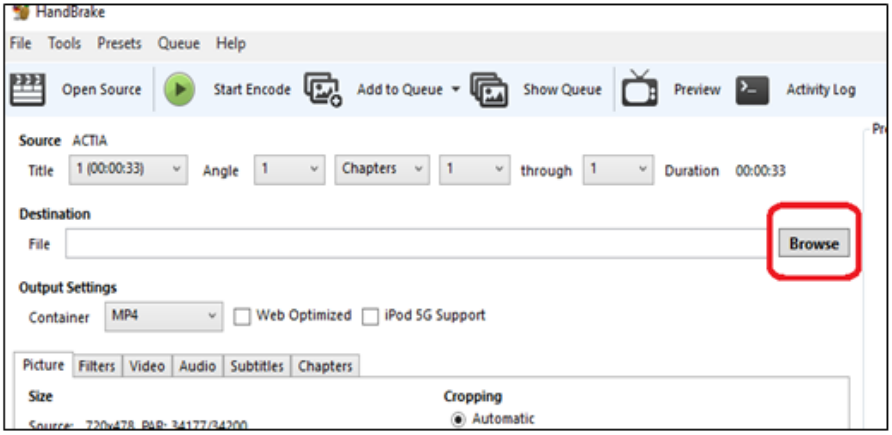

Figure 3 – Handbrake

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- In the field, "Output Settings" in the "Container" option choose "MP4"
- In the "Picture" tab, the "Width" field must have the value "1280"
- The "Height" field must have the value "720".
- If you change this value, and it decreases by itself, leave the data that the program determined;

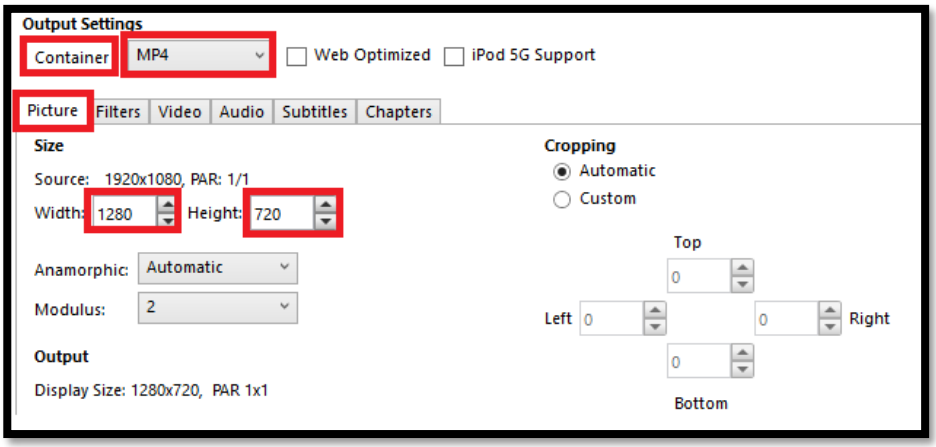

Figure 4 – Configuring Handbrake

- Switch to "***Video***" tab
- In the option "Framerate" (FPS), check the option "Constant Framerate" and enter the value "30"
- Check the option "*Avg Bitrate (kbps)*" and enter "*600*"

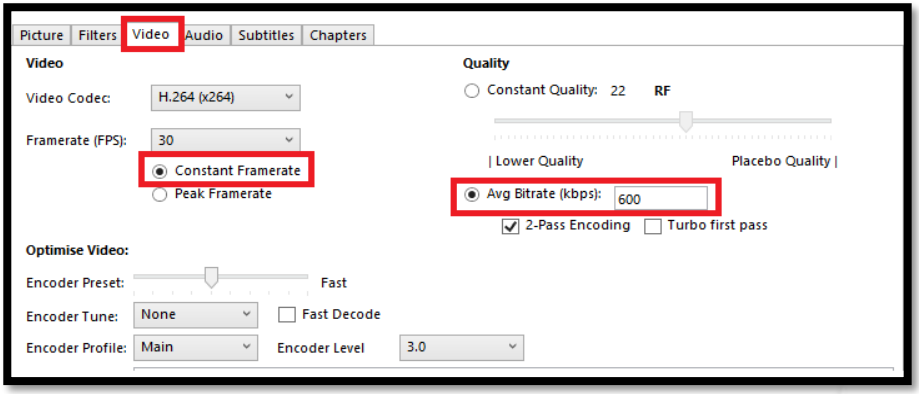

Figure 5 – Configuring Handbrake

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- To start the conversion, click ***"Start Encode"***

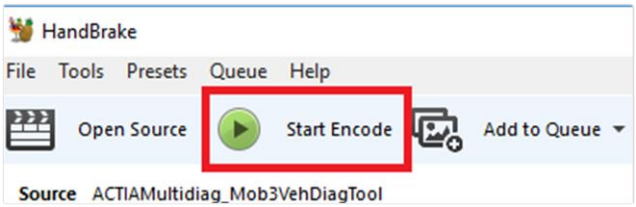

Figure 6 – Configuring Handbrake

- After formatting the video, the message/image below will appear;

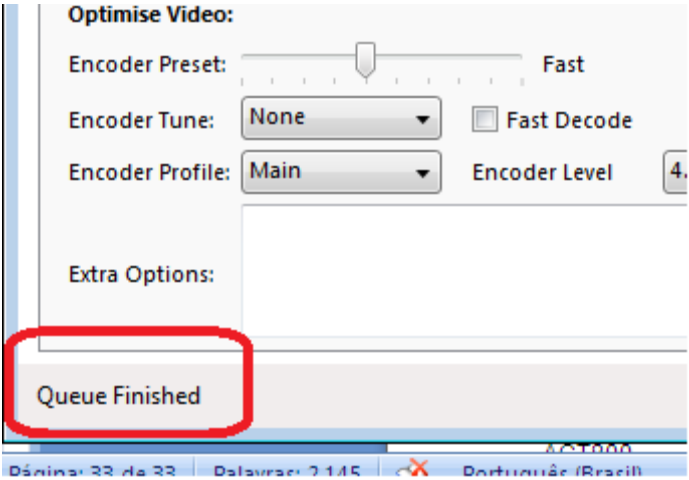

Figure 7 – Configuring Handbrake

- Remove power from the ACT800 and remove the SD card from the Streaming ACT800 server;
- Insert SD card into computer
- Navigate to the \root\promos directory which is located inside the ACT800 SD card;
- Search the video previously generated with the Handbrake software; in the folder you chose to save earlier, and place the video in the SD card's promo folder;
- Inside the "Promo" folder, create a file via notepad and name it "promos.json", remembering that ".json" is the file's extension.

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- Open this file with Notepad++ software
- For Software Download Notepad++ software see section 5 (Programs)
- Insert the content below (from the square bracket):

```
[
{
"name":"Introducao.mp4",
"src":"/root/promos/Introducao.mp4",
"type":"promo",
"expiration":"2070-12-31 00:00:00"
}
]
```

- Where: Introducao.mp4 is the name of the video file and "expiration" is the date and time the promotion will no longer be shown
- Example:
- The video in this NT was named "institutional_video", then in place of "introduction. mp4", will be changed to "video_institucional.mp4"
- The date and time for the end of the promotion was set to 30/06/2020 at 14:30Hr, so on that date and time the promotional video will no longer be shown;

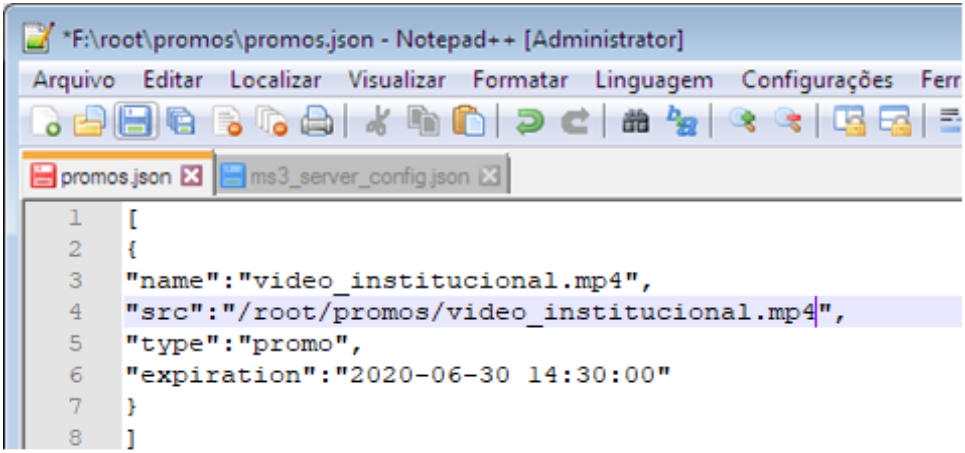

Figure 8 – Notepad ++

- Close the Notepad++ software;

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- ***For the case where you need to insert more than one promotional video file, just insert a comma after closing the braces and repeat the block limited by braces, as shown below:***

```
[
{
"name":"Introducao.mp4", "src":"/root/promos/Introducao.mp4", "type":"promo",
"expiration":"2070-12-31 00:00:00"
},
{
"name":"video2.mp4",          "src":"/root/promos/          video2.mp4",
"type":"promo",
"expiration":"2070-12-31 00:00:00"
}
]
```

Figure 9 – Notepad ++

- With ACT800 Streaming turned off, remove the SD card from the computer and reinsert it into the ACT800

- Connect ACT800 power and test using the ***ACTIA SYSTEMS*** app (download from Play/Apple Store on your smartphone)

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5 PROGRAMS

5.1 OVERVIEW

This procedure describes the process for downloading the programs necessary to use this NT

REQUIRED MATERIAL:

- Computer with Ethernet network interface

5.1.1 PROGRAMS

- Handbrake Software
- Notepad ++ Software
- ACTIA CLIENT MANAGER Software

5.1.2 DOWNLOADING HANDBRAKE SOFTWARE

- Download the HANDBRAKE Software at this Link (for W.64 bits) https://handbrake.fr/rotation.php?file=HandBrake-1.3.3-x86_64-Win_GUI.exe
- After downloading the Handbrake software, run the program and click "Next"

Figure 1 – Installing Handbrake

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- Follow the steps in the figures to install Handbrake

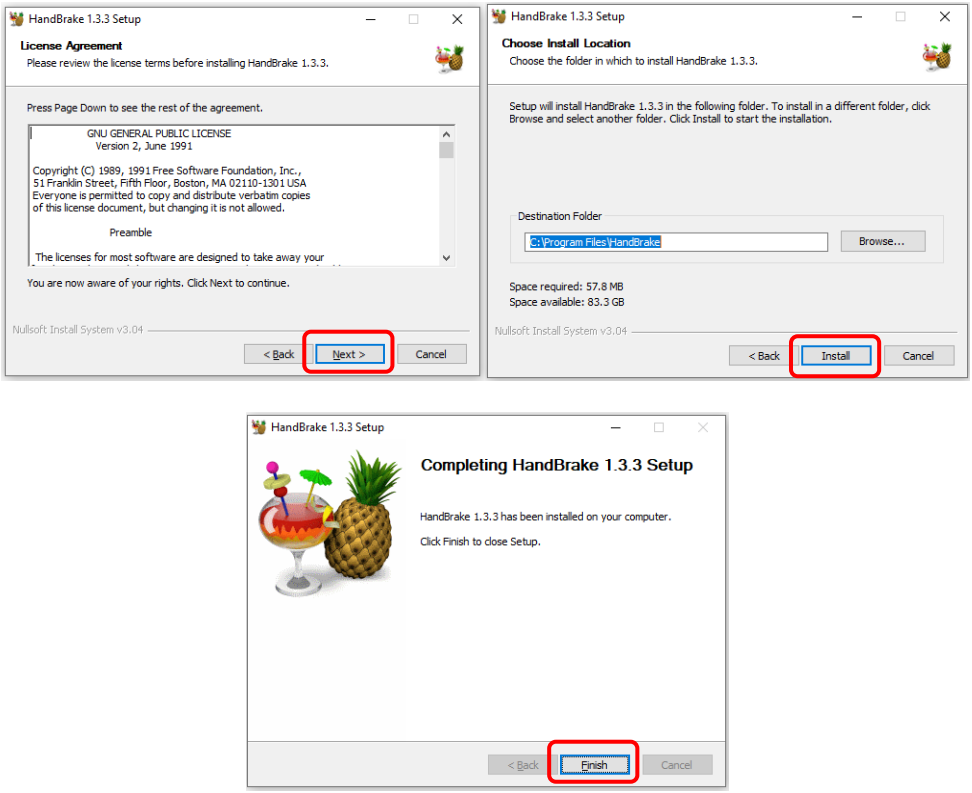

Figure 2 – Installing Handbrake

- Installation completed

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5.1.3 DOWNLOADING NOTEPAD++ SOFTWARE

- Download NOTEPAD++ Software at this Link https://notepad-plus-plus.org/downloads/v7.8.7/
- After downloading the Notepad++ software, run the program.
- Choose the language and press “OK”

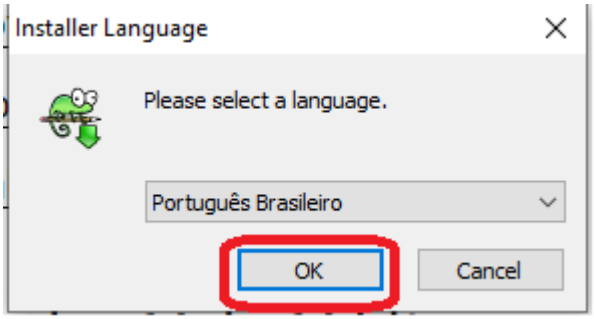
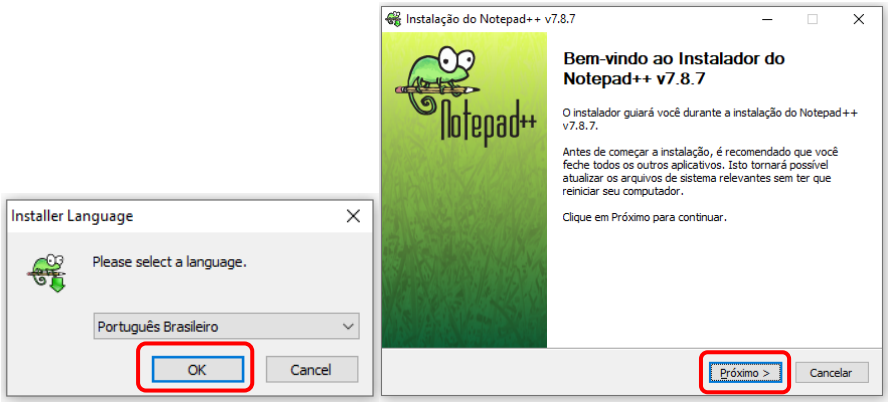


Figure 3 – Installing Notepad++

- Follow the steps in the figures to install Notepad++



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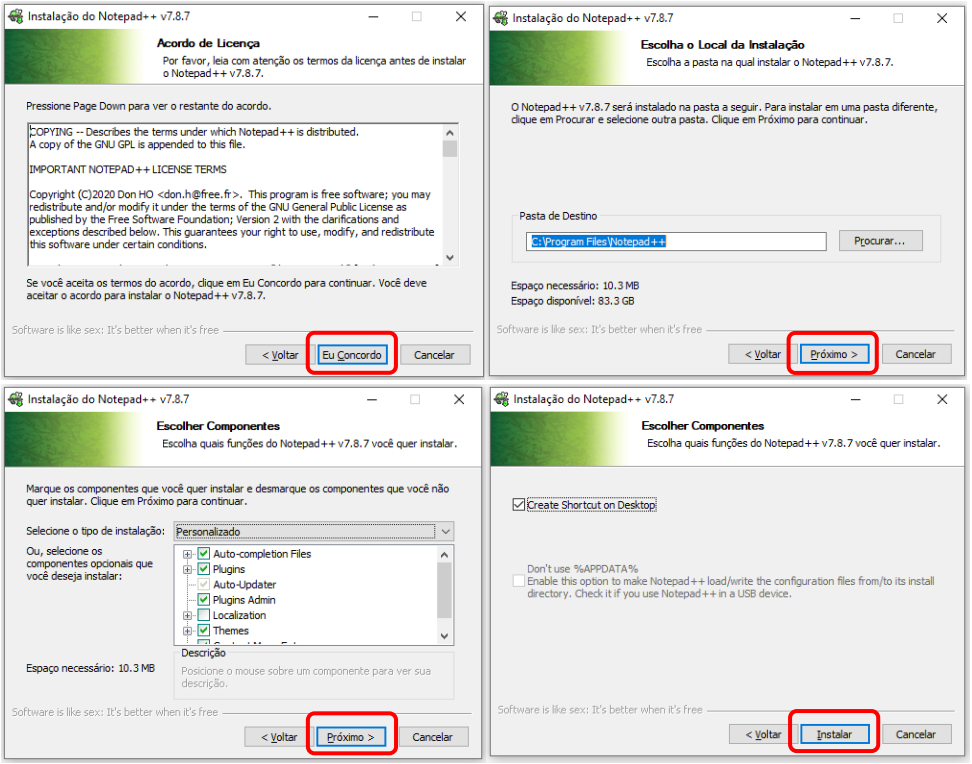

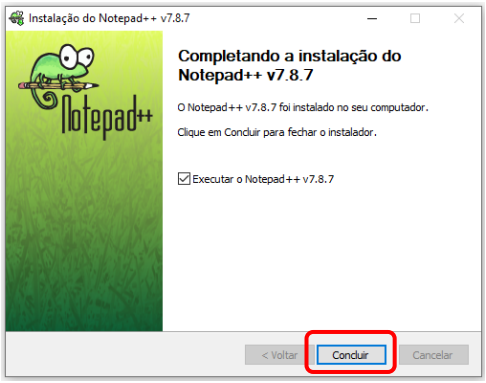

Figure 4 – Installing Notepad++

- Installation completed

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5.1.4 DOWNLOADING THE ACTIA CLIENT MANAGER SOFTWARE

- The ACTIA CLIENT MANAGER Software is provided by Actia
- After receiving the ACTIA CLIENT MANAGER software run the program and follow the steps below to install

ActiaClientMgr_v1.8.1.exe

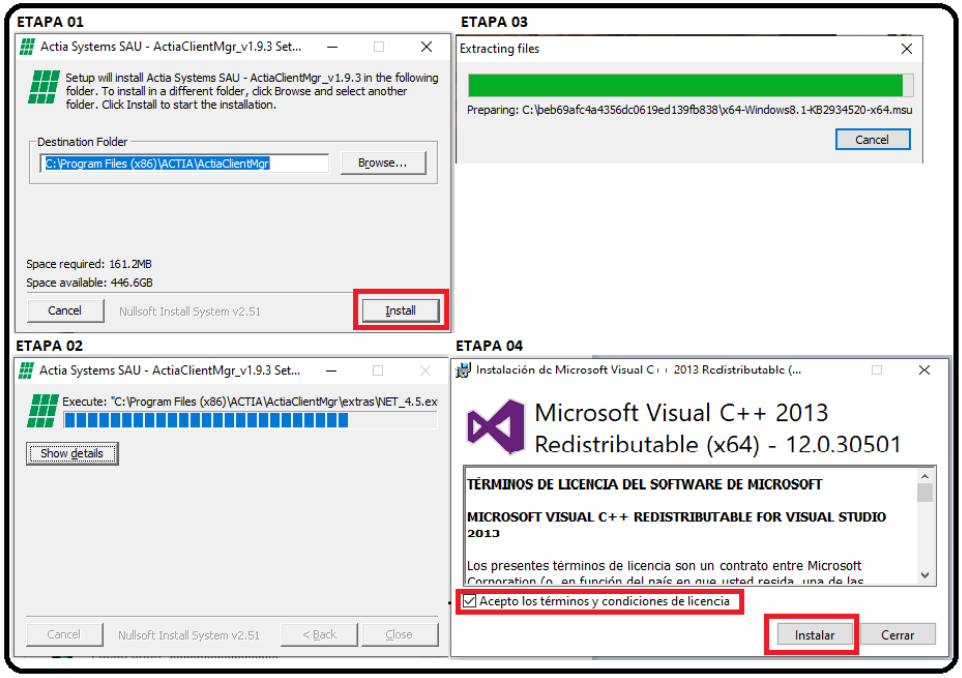

Figure 1 – Installing Actia Client Manager

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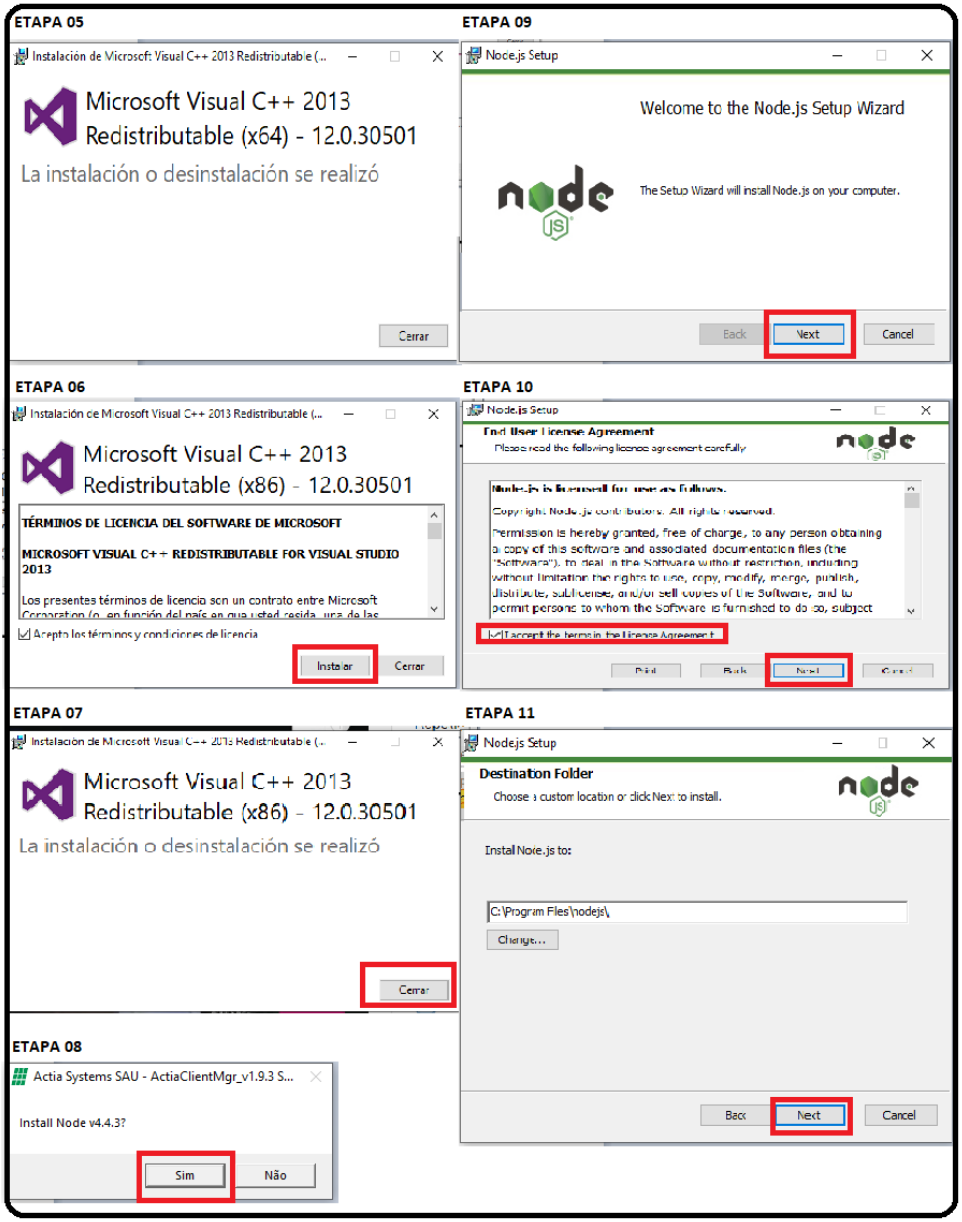

Figure 2 – Installing Actia Client Manager

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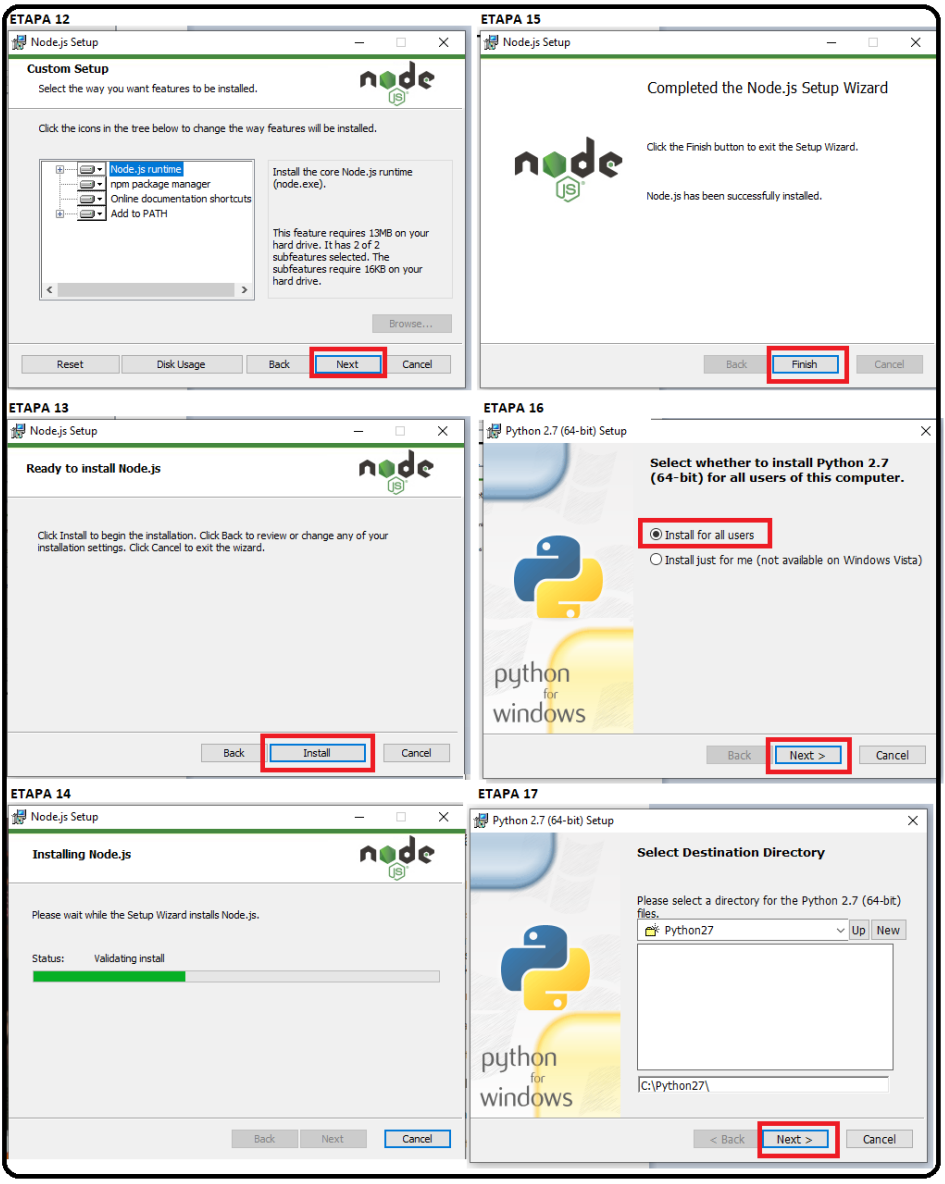

Figure 3 – Installing Actia Client Manager

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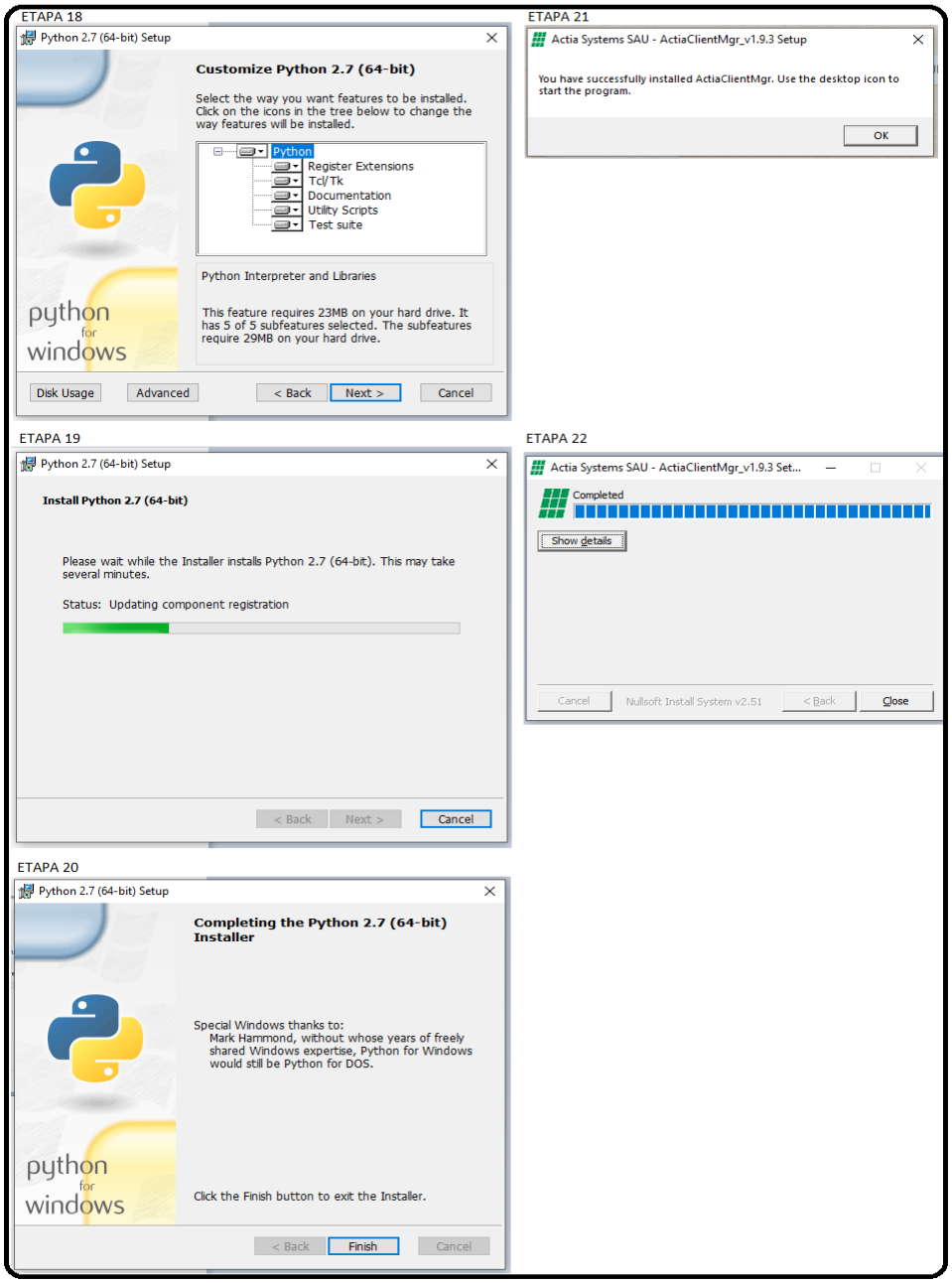

Figure 4 – Installing Actia Client Manager

- Installation completed

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6 FREQUENT QUESTIONS

6.1 ANTENNA DOES NOT TURN ON?

Follow the steps below to verify:

1. The antenna is powered by the ACT800, make sure it is turned on.
2. Check that the network cable is point-to-point.
3. Check that the cable is connected to the antenna's WAN port and the ACT800.

6.2 DOES NOT ROTATE ANY MOVIE

Follow the steps below to verify:

1. Check that the ACT800 memory card is securely plugged into the tray.
2. Check if the antenna is connected with Blue Led, if not, the antenna needs to be reconfigured.
3. Check section 1 of this NT (UNIFI ANTENNA CONFIGURATION)

6.3 I CANNOT ADOPT THE ANTENNA

This error occurs when the reset process was not performed correctly, and/or when configured incorrectly.

Follow the steps below to verify:

1. Reset the antenna using a button located on the rear of the equipment. Using a clip or fine tip tool it is possible to press the reset button, press for 10 seconds, which will make the antenna restore its factory settings
2. Follow the steps in Section 2 (ADOPTION OF ANTENNA VIA SHH)

6.4 I CANNOT FIND THE CONTENT I CREATE ON MY PC

Follow the steps below to verify:

1. Access the generated contents folder via the path C:\Users\(computer name)\AppData\Roaming\ActiaClientMgr\root
   To check the name of your computer, go to the Control Panel and go to System and search for "COMPUTER NAME".

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