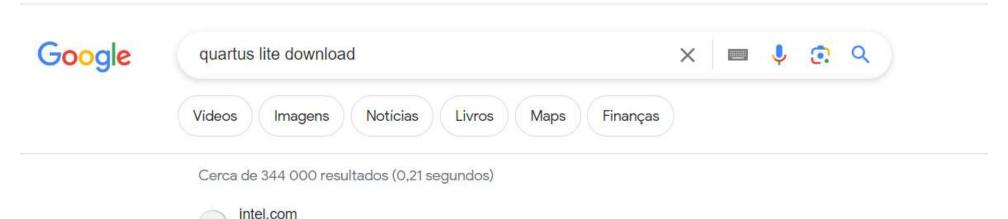
Instalação das ferramentas de SW utilizadas em ISD e LSD

Enrool na intel

Download das aplicações e suporte para dispositivos

Geração e instalação da licença



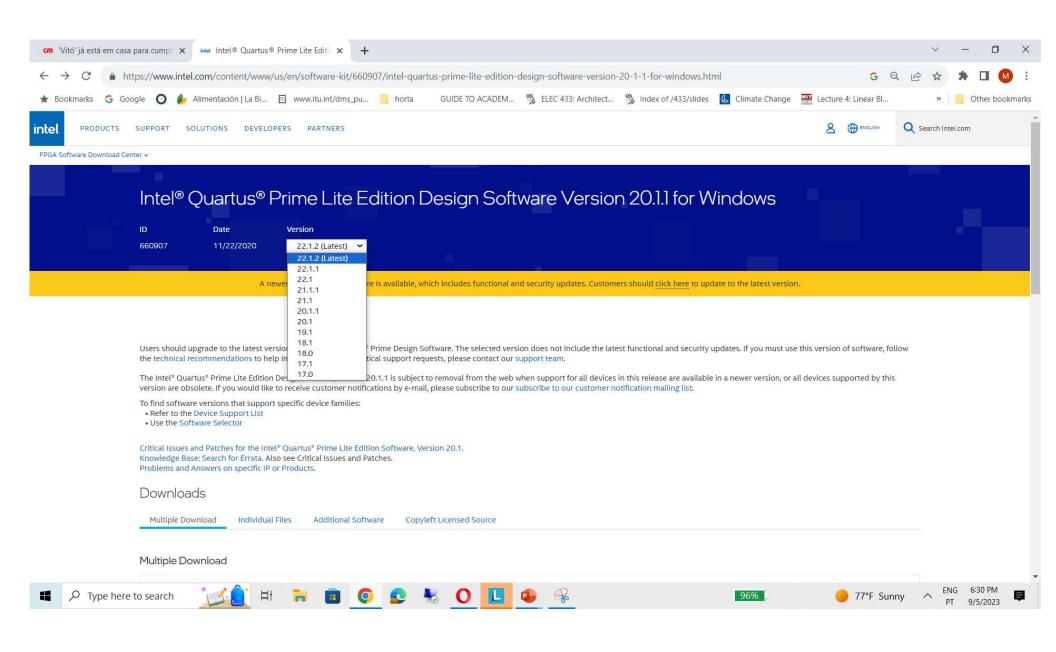
https://www.intel.com > software-kit

Intel® Quartus® Prime Lite Edition Design Software Version ...

Multiple Download. Intel® Quartus® Prime Lite Edition Software (Device support included).

Download Quartus-lite-20.1.1.720-windows.tar.

intol com br



Intel® Quartus® Prime Lite Edition Design Software Version 22.1.2 for Windows

785086 B/1/2023 Version
22.1.2 (Latest) Version

Users should upgrade to the latest version of the Intel® Quartus® Prime Design Software. The selected version does not include the latest functional and security updates. If you must use this vers the technical recommendations to help improve security. For critical support requests, please contact our support team.

The Intel® Quartus® Prime Lite Edition Design Software, Version 22.1.2 is subject to removal from the web when support for all devices in this release are available in a newer version, or all devices version are obsolete. If you would like to receive customer notifications by e-mail, please subscribe to our subscribe to our customer notification mailing list.

To find software versions that support specific device families:

- Refer to the Device Support List
- · Use the Software Selector

Critical Issues and Patches for the Intel® Quartus® Prime Lite Edition Software, Version 22.1.

Knowledge Base: Search for Errata. Also see Critical Issues and Patches.

Problems and Answers on specific IP or Products.

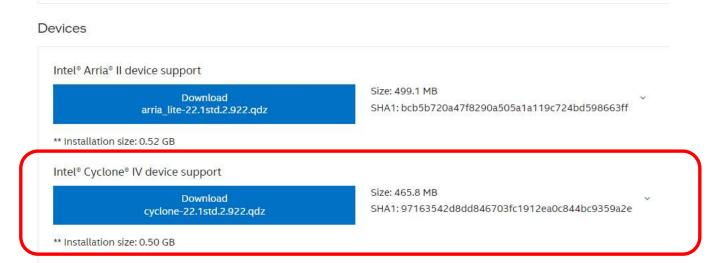


Intel® Quartus® Software

Façam só o download das aplicações que vão necessitar e que estão indicadas:

Quartus prime
Questa* Intel FPGA Edition
E nos dispositivos(FPGAs)
Intel Cyclone IV device support
Devem colocar todas as
aplicações na mesma pasta
quando fazem o download pois
facilita a instalação

Intel® Quartus® Software Intel® Quartus® Prime (includes Nios II EDS) Download QuartusLiteSetup-22.1std.2.922-windows.exe ** Nios® II EDS on Windows requires Ubuntu 18.04 LTS on Windows Subsystem for Linux (WSL), which requires a manual installation. ** Nios® II EDS requires you to install an Eclipse IDE manually. ** Installation size: 8.87 GB Questa* - Intel® FPGA Edition Download QuestaSetup-22.1std.2.922-windows.exe Size: 780.1 MB Size: 780.1 MB SHA1: d40b03c15a206fe502befba78208c815c3b73711



cyclone-22.1std.2.922.qdz

QuestaSetup-22.1std.2.922-windows.exe
QuartusLiteSetup-22.1std.2.922-windows.exe

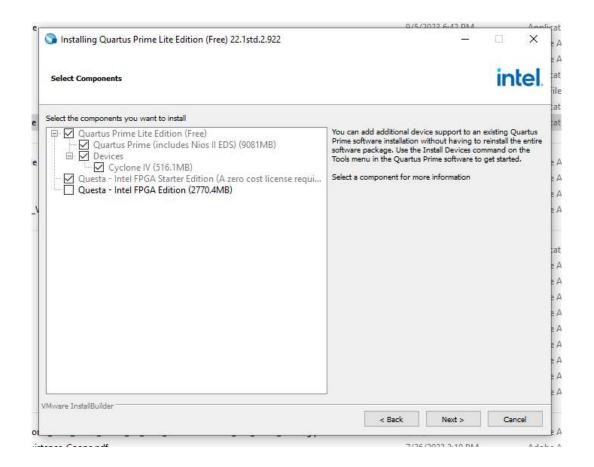
Depois do download executam

QuartusLiteSetup-22.1std.2.922-windows.exe

Depois de algumas janelas de aceitação chegam à janela do lado. Como podem verificar já se encontra seleccionado tudo o que deve ser instalado com o Quartus Lite Devem continuar com next.

No final ficam com SW instalado mas não podem simular os circuitos digitais que criarem.

O próximo passo será gerar um licença (free) para o Questa de modo a poderem realizar essas simulações.



9/5/2023 1:28 PM

9/5/2023 1:28 PM

9/5/2023 1:27 PM

ODZ File

Application

Application

476,929 KB

798.843 KB

1,701,155 KB

MUITA ATENÇÃO

Quando inciarem o QUARTUS PELA PRIMEIRA VEZ vai aparecer um menu em que têm que escolher um de três opções

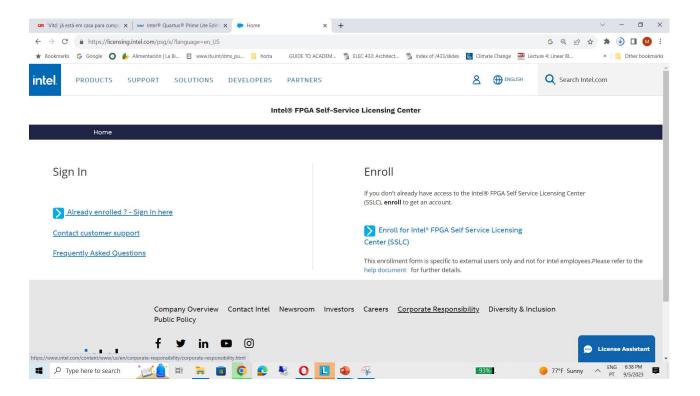
Devem escolher - Correr o Quartus (opção do meio)

Apesar de irem instalar uma licença para o Questa na realidade não necessitam de uma licença para o Quartus LITE

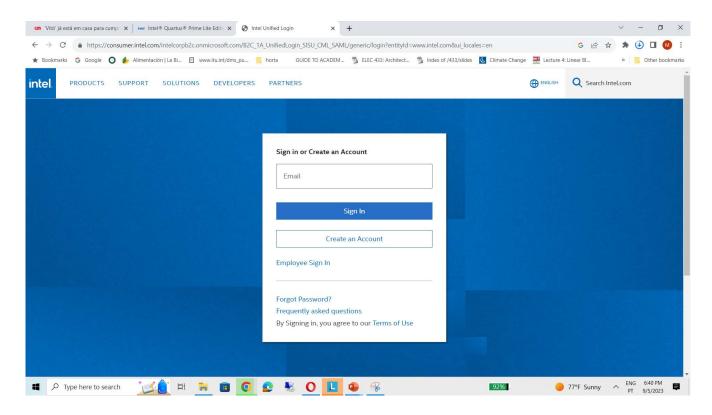
Geração de licença para o Questa.

https://licensing.intel.com/psg/s/?language=en US

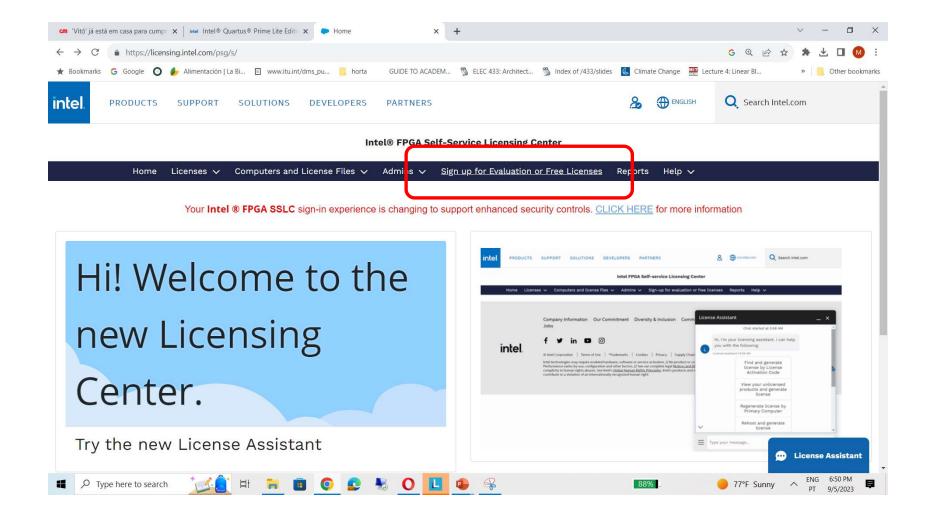
Click Enroll for Intel® FPGA Self Service Licensing Center (SSLC)



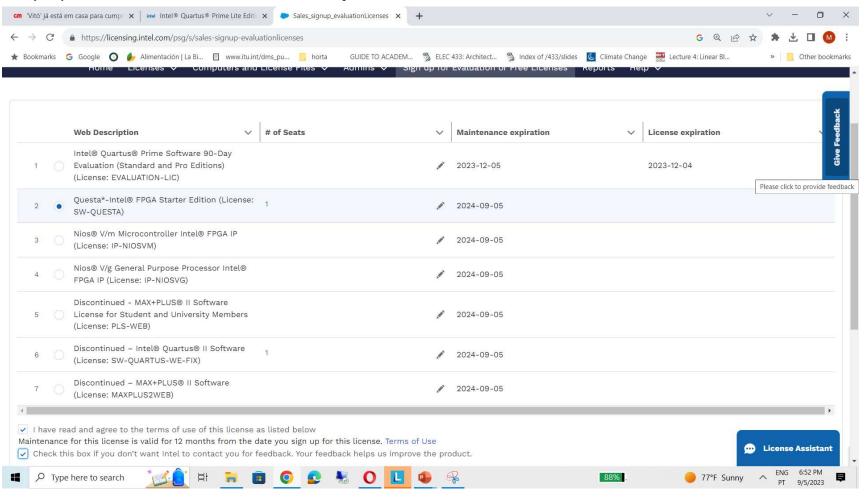
<u>Vai ter que se registar. O processo de registo vai necessitar que faça o download da APP Authenticator no seu telemovel- Good Luck.</u>

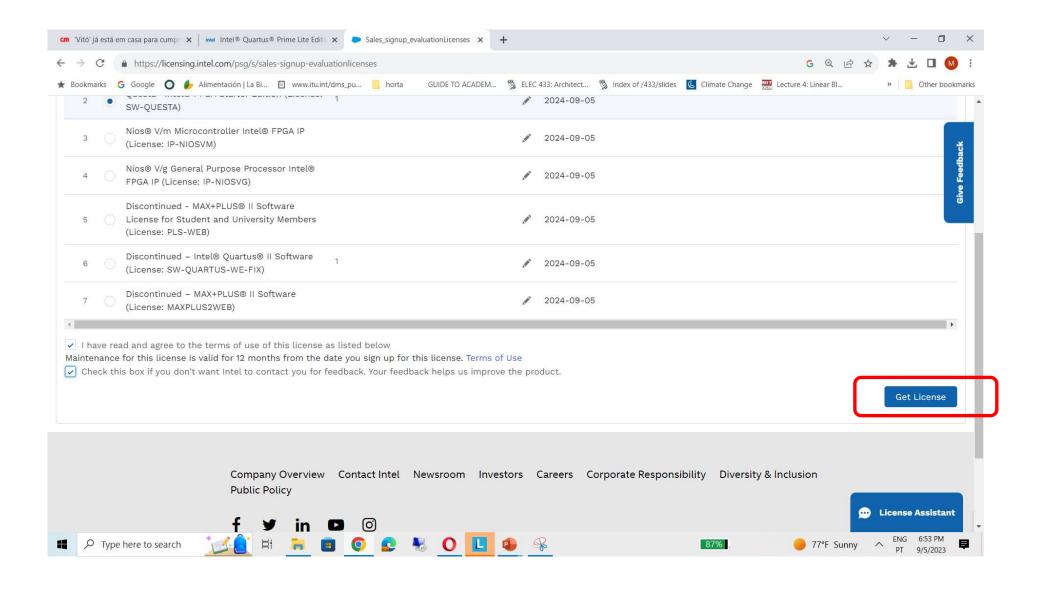


Um vez autenticado escolher Signup for Evaluation or Free Licences

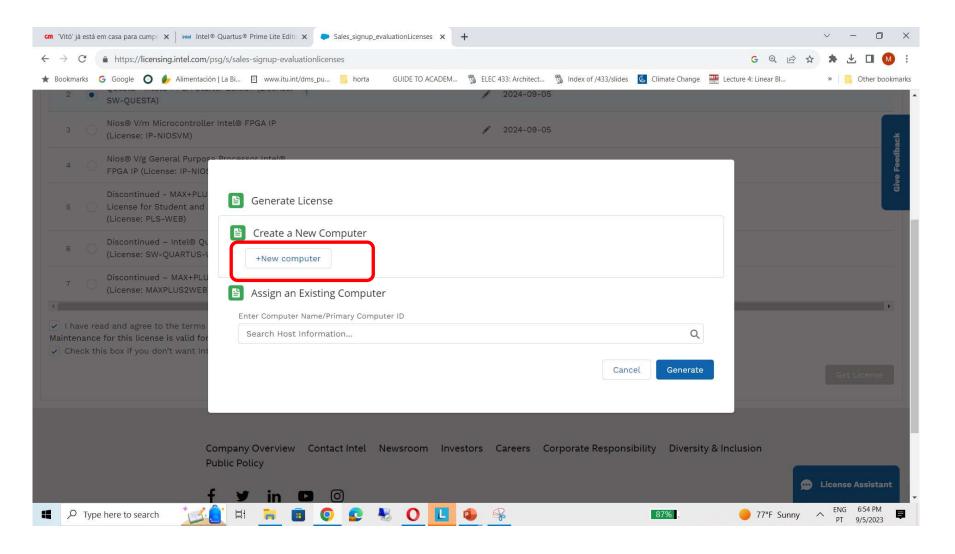


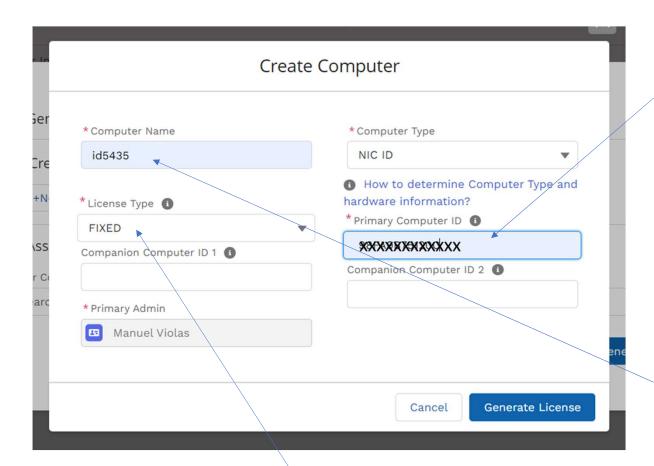
Na janela selecionar Questa* Intel FPGA Starter Edition (SW – QUESTA)
Click no lápis para editar e seleccionar uma licença – tickar os terms de uso e feedback e continuar com **Get License**





Click +New Computer





Aqui coloca Physical Address de um dispositivo do computadior.

Abrir Janela de comandos (cmd no search)

Executar ipconfig -all e escolhar uma das physical addresses disponiveis

Eu escolhi a placa adaptadora de ethernet

Escrever os 12 carateres sem os hifens

Nome do computador Control panel -> system -> computer name

Tipo de liceça FIXED

A licença é enviada por email.

Com o mail recebem tambem instruções para sua instalação

A licença é um ficheiro anexo ao mail e que deve ser guarda numa pasta, por exemplo na pasta C:\intelFPGA_lite que é normalmente criada quando instala o Quartus.

1.0 License Installation Instructions

 Save the attached license file to your computer's hard drive. Intel FPGA recommends saving the file with a ".dat" file extension.

Note: If no license file is attached to this email, please refer to "2.0 Getting your License File from Self Service" for more information.

2. Use the appropriate method below (1.1 or 1.2) to setup your License.

1.1 Fixed PC Licenses, Specifying your License File within Quartus® Prime Software

Note: Does not support third-party EDA tools such as ModelSim® Intel FPGA Edition, LM_LICENSE_FILE must be used.

See Setting the LM_LICENSE_FILE Environment Variable in the Windows Control Panel in the Quartus Prime Software Installation and Licensing Manual (.pdf) for more information:

- 1. In Quartus Prime software, choose License Setup (Tools Menu).
- 2. Specify the full path to the licenses file in the "License File" field or browse to the file.
- 3. Click OK to close the License Setup Menu
- 4. If you encounter any problems, please see section 3.0 for Licensing and Installation resources and support information.

Criação de variável LM_LICENSE_FILE

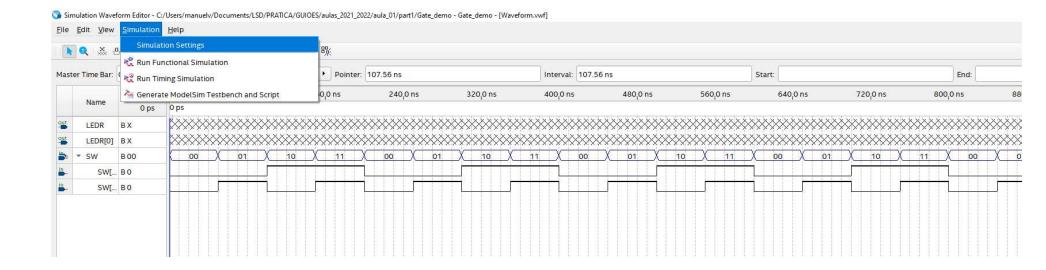
On Windows System

- 1. Go to **This PC**, right-click, and select **Properties**.
- 2. Click Advanced System Setting.
- 3. In the Advanced tab, select Environment Variable.
- 4. Under System variables, create a new variable with the name as LM_LICENSE_FILE and value as cense.dat file path>.
- 5. Click **OK** and restart the Questa* software.

Alternatively, open a command prompt and run the following command to set up the $\texttt{LM_LICENSE_FILE}$ environment variable:

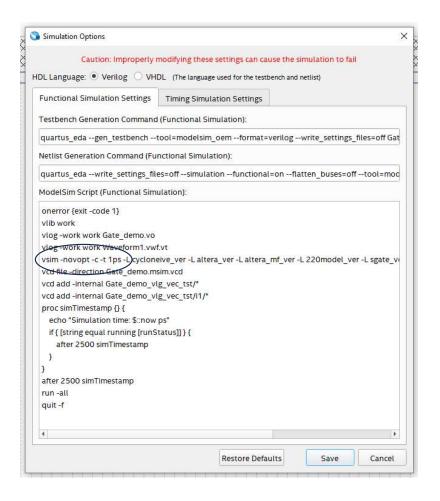
setx LM_LICENSE_FILE <path_to_license_file>;%LM_LICENSE_FILE%

Para similar o comportamento de um circuito digital vai ser necessário no quartus abrir o University Program VWF que abre uma Janela Simulation Waveform Editor (abaixo)



Deve selecionar **Simulation -> Simulation Settings**

Aterar -novopt option para -voptargs="+acc"



```
Simulation Options
                                                                                                 ×
            Caution: Improperly modifying these settings can cause the simulation to fail
HDL Language: 

Verilog 

VHDL (The language used for the testbench and netlist)
 Functional Simulation Settings Timing Simulation Settings
 Testbench Generation Command (Functional Simulation):
 quartus_eda --gen_testbench --tool=modelsim_oem --format=verilog --write_settings_files=off Gat
 Netlist Generation Command (Functional Simulation):
  quartus_eda --write_settings_files=off --simulation --functional=on --flatten_buses=off --tool=mod
 ModelSim Script (Functional Simulation):
  onerror {exit -code 1}
  vlib work
  vlog -work work Gate demo.vo
  ylog-work work Waveform1.vwf.vt
  vsim -voptargs= "+acc" -9-t 1ps -L cycloneive_ver -L altera_ver -L altera_mf_ver -L 220model_ver -
  vcd file direction Gate_demo.msim.vcd
  vcd add -internal Gate demo vlg vec tst/*
  vcd add -internal Gate_demo_vlg_vec_tst/i1/*
  proc simTimestamp {} {
    echo "Simulation time: $::now ps"
    if { [string equal running [runStatus]] } {
      after 2500 simTimestamp
  after 2500 simTimestamp
  run -all
  quit -f
                                                  Restore Defaults
                                                                            Save
                                                                                         Cancel
```