# **Build SW from Scratch**

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V0

The goals of this document is to describe how to build Multiscan binary from source code on a brand new PC.

## Build Linux virtual machine

T.B.D

## Build GUI application

1. On a Ubuntu 16.04 system install qt-creator-opensource-linux-x86\_64-4.10.0.run. Copy exist on the server.
2. Clone the repository of the code:  
   git clone <https://github.com/rond-mstech/ExploscanV3>
3. Install arm tools there is a copy on the server  
   fslc-framebuffer-glibc-x86\_64-fsl-image-qt5-armv7at2hf-neon-toolchain-2.5.2.sh.tar.gz
4. Run the tools script   
   . /opt/fslc-framebuffer/2.5.2/environment-setup-armv7at2hf-neon-fslc-linux-gnueabi
5. Run QT  
   ./qtcreator-4.10.0/bin/qtcreator
6. Open the project ExploscanV3.pro clean and build.

## Build multiscan\_bsl application

1. Make sure 1,3,4,5 above are done.
2. Clone the repository of the code:  
   git clone <https://github.com/rond-mstech/multiscan_bsl>
3. Open the project Multiscan\_bsl.pro clean and build.

## Build MstAlgPlugin application

1. Make sure 1,3,4,5 above are done.
2. Clone the repository of the code:  
   git clone https://github.com/rond-mstech/msAlgPlugin
3. Open the project MstAlgPlugin.pro clean and build.
4. Each algorithm need to repeat with a change in the pro file  
   #CONFIG += algE70\_12

#CONFIG += algE200\_04

#CONFIG += algE300\_01

#CONFIG += algE100\_05

CONFIG += algE100\_07

#CONFIG += algL100\_02

#CONFIG += algN03\_01

#CONFIG += algN100\_05

## Build Multiscan PC application

1. On a Windows 10 system install qt-creator-opensource-windows-x86\_64-4.11.0.exe. Copy exists on the server.
2. On a Windows 10 system install qt-opensource-windows-x86-5.13.2.exe. Copy exists on the server.
3. Clone the repository of the code:  
   git clone <https://github.com/rond-mstech/MultiscanPC>
4. Open project MultiscanPC.pro in qtcreator IDE, clean and build.
5. Use CONFIG+=limit\_edition in pro file to build the LE version.

## Create PC application installer

1. On a Windows 10 system install inno-setup-5-5-9.exe. Copy exists on the server.
2. Unrar the archive MultiscanPC\_Install.rar. Copy exists on the server.
3. Copy file MultiscanPC.exe from MultiscanPC build folder to MultiscanPC\_Install\install\ folder.
4. Copy file MultiscanPCLE.exe from MultiscanPC build folder to MultiscanPC\_Install\install\_le\ folder.
5. Open script file MultiscanPC\_Install\msi\multiscan\_pc\_setup.iss with Inno Setup Compiller. Edit correct paths and Run the script. Wait while MultiscanPC installer is created.
6. Open script file MultiscanPC\_Install\msi\multiscan\_pc\_le\_setupiss with Inno Setup Compiller. Edit correct paths and Run the script. Wait while MultiscanPCLE installer is created.