FILES USED FOR MAIN PORGRAMS (XRF_SCANNER):

USED FILES: (.CPP)

```
autofocus.cpp                -> telemeter control and Z automatic positioning
Connectios_Creator.cpp       -> creates connections between GUI obj. and functions
export.cpp                   -> export map images
export_pymca.cpp             -> export data in PYMCA format
external_programs.cpp        -> manages other programs connected to this via shm
GUI_Creator.cpp              -> creates GUI
laser.cpp                    -> manages lasers for alignement (not implemented yet)
main.cpp                     -> set basic ownership for ports, sets shm parameters
mainwindow.cpp               -> manages motors basic, scan basic, daq basic etc.
mainwindow_define_pixel.cpp  -> define pixel dimensions
mainwindow_loadSHM.cpp       -> load data for diplaying maps
mainwindow_mouse.cpp         -> controls mouse selection on maps
mainwindow_online.cpp        -> manages real time maps
mainwindow_showMap.cpp       -> manages static maps
menu.cpp                     -> creates mainwindow menu
move_motors.cpp              -> moves motors
resouces.qrc                 -> graphic resources
ScanYX_XY.cpp                -> drives scans (YX and XY)
SHM_Creator.cpp              -> creates shm
Stage_selection.cpp          -> selects stages for the 3 axes
TTY_motors.cpp               -> Inits serial communications with motors
X_Init.cpp                   -> Inits X stage (6 different stage available)
Y_Init.cpp                   -> Inits Y stage (6 different stage available)
Z_Init.cpp                   -> Inits Z stage (6 different stage available)
```

USED FILES: (.H)

```
mainwindows.h                -> class definitions
../Header.h                  -> common header (used also in external programs)
../variables.h               -> common variables (shared with external programs)
../Shm.h                     -> global definition of shm segments
```

EXTERNAL PROGRAMS (LINKED VIA SHM)

```
ADCXRF_Optical_Link          -> Optical link digitizer driver
ADCXRF_USB                   -> USB digitizer driver
Digitiser_interface          -> interface to set/change Digitiser parameters
OnLineMap                    -> displays realtime maps
rate                         -> rate meters for DAQ
ScreenDetector               -> detects screen resolution for GUI_Creators
XrayTable                    -> Xray energy table
XRF                          -> Spectrum viewer
```

OTHER FILES:

```
Resolution                   -> generated by ScreenDetector and use by programs
calibration.txt              -> used by the spectrum viewer
```

GENERAL STRUCTURE:

The program consists of 8 independent programs linked via shm. Each program can be compiled inependently in its folder and uses ../Shm.h header for the SHM segments definitions. Programs can be also compiled all at once using ../Compile command.

PROGRAMS FOLDERS TREE:

```
Digitiser_interface          -> contains files for digitiser executable
```

```
Digitiser_Opical_link        -> optical link drivers for CAEN 5780 digitiser
Digitiser_Usb                -> usb link drivers for CAEN 5780 digitiser
OnLineMap                    -> contains files for real time map
rate                         -> contains files for ratemeter
ScreenDetector               -> contains files for screen detection
Spectrum                     -> contains files for spectrum viewer
XrayTable                    -> contains files for energy element table
XRF_Program                  -> destination folder for all programs
XRF_Scanner                  -> contains files for the main program


INSTALL and COMPILE:
```