The aim of this thesis is to create disassembler-debugger for Intel64 processors. Disassembler loads instructions and instruction's format from XML files which implies future extensibility for new instructions and architecture. After inserting of a program disassembler converts its instructions to assembly language. Debugger is able to run and control the program's instruction flow by stepping over single instruction or by setting some breakpoints that stops the program. Debugger can also show program's threads and find some basic programming structures like if statements and loops.