The thesis deals with the development of a software sound synthesizer of the .NET platform. The goal is to create a software tool which creates data, that are passed to a sound card or a similar device and that can by played on an output sound device, from MIDI data. Emphasis is placed on a authenticity of a sound output. Created sound would therefore be most resemble the sound of real instruments. Another goal is to create a guide, on how to write a software sound synthesizer that supports VST technology.