

There are many ways to define a transfer function for direct volume rendering (DVR). This thesis presents an universal system of transfer function editors which works also as framework for creating new types of these editors. Unified interface with proposed transfer function data structure gives us independency on used graphic engine and the possibility to work with more different editors at the same time. We can implement new technique for designing transfer function without the need of dealing with the graphic engine and we can add our new editor to this existing system in few well defined steps. We have also designed some interesting ways to define transfer function and we discuss their usefulness here.