

## **Abstract**

The main aim of the study was to find out how to use the new medium – Virtual Reality – in presentation of music recording. This dissertation describes the process of creation the new work of art – Idmen B in Virtual Reality, that makes it possible to listen to Iannis Xenakis' piece in a completely new way. The listener is invited to explore musical space of the piece, to be not only a passive consumer of art, but also to become an active creator, by influencing position of instruments on the virtual stage. By creating dedicated application, it is possible to control various aspects of the recording, and Virtual Reality makes it possible to interact freely with a lot of different components, that constitute for the final sound of the piece, including timbre, time, space, balance and many other. In this dissertation autor tries to answer the question, how to use the VR for music recordings, exercising the possibilities of the new medium, retaining quality of sound, and respecting composers' intentions.

This thesis consists of 8 chapters. In the first chapter, the Introduction, author describes a few different meanings of the word space and its influence on music and music recordings. Chapter 2 – The Virtual Reality – outlines definitions of the term VR and gives the overview of different applications of this technology for music and new media. Chapter 3, Iannis Xenakis – An Architect of Sound, is a summary of composers life in aspects important to understand his perception of space in music and his view on the technology in composition and listening. This chapter also gives a brief description of Xenakis' works, that explore different possibilities of spatiality and non-traditional positioning of the musicians. In chapter 4, author explains the process of creating the recording of Idmen B by Iannis Xenakis and problems that aris while working in such matter. This leads to chapter 5, Form of Musical Work of Art, which contains remarks about integrity of work of art and discusses the subject of scope of freedom, that should be given to the listener. Chapter 6 details the process of Implementation of music recording in virtual reality, giving basic assumptions made by the author, describing different modes of interaction created in the application and explaining the choice of the software and hardware used. Last 2 chapters tell of presentation of the Idmen B in Virtual Reality and summarizes the thesis.

Author concludes his work by giving a recapitulation of main advantages of the new medium, while observing dangers and drawbacks, that come along with the advanced technology.

**Interaction with sound space of Idmen B by Iannis Xenakis in Virtual Reality**