

Project Scope Statement

Project Justification

The main motivation of developing the project is passing the Team and Preengineering Project university course. We aim to receive a positive grade by Mgr. Inż. Jakub Klikowski and successfully finish studies.

The secondary motivation is getting knowledge about implementing principles of digital signal processing in Python language and to expand programming skills.

Lastly, we wanted to work with Dolby corporation in order to get information about the operation of this company and their way of conducting projects.

Project Scope

During the project we will create a stand-alone desktop application written in Python, which will be able to convert an input .wav file into the output of the same extension with added audio effect. The effects will implement specific filter causing the effect on the input signal. The application must be created until the end of the semester. The effect should be both time- and frequency-domain operating. The final project will consist of full signal path, tested major software bugs. The application should be intuitive to use.

Project Deliverables

- Implementation of the ability to add time-domain effects
- Implementation of the ability to add frequency-domain effects
- Complete signal path for audio processing
- Program tested and potential bugs eliminated

Project Success Criteria

- Finish by the end of the semester
- Needs to implement the functionality of generating the output file with chosen audio effect
- Needs to create a full signal path for .wav files
- Needs to implement basic user interface