

## SOUND DESIGN SUPPORT TOOLS FOR PRE-PRODUCTION PHASE IN VISUAL CONTENT PRODUCTION

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### ABSTRACT

Sound plays an important role in visual content. Usually sound will be designed according to the sound designer or sound director's skill and experience. In a case where a novice would want to design the sound for a film or animation, it will take time as they require skill and experience. An application in which the sound design can be done in preproduction stage and also to assist the novice sound designer was proposed. In this research, a template to analyze existing visual content's sound design and a supporting tool for sound design in the form of web application was developed. Users of this system can verify the way they want to structure the sound design for visual content based on the story line. The application outputs information similar to cue sheet. It contributes to shorten read time in visual content workflow.

**Keywords:** sound design, visual content, content production

### 1. INTRODUCTION

Sound design is an important task within visual production. In our research, sound designer is a person who designs the structure and placements of sound appearance in a visual content based on the pre-production materials. According to Bochar, sound editor should work with the crew from the start and not only in post-production<sup>[1]</sup>. In our research, sound design was proposed to be done in early phase which is in proposal stage. Proposal stage is the earliest stage in Pre-production phase<sup>[2]</sup>.

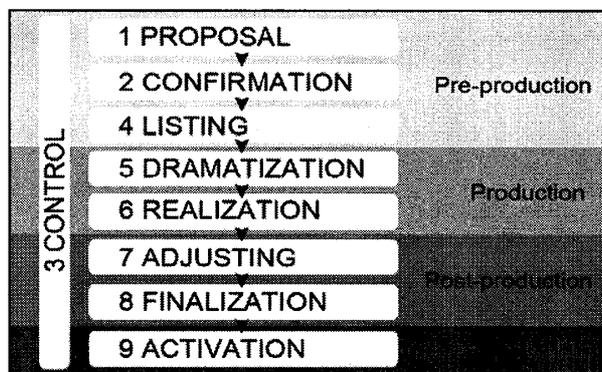


Fig. 1: Visual content production phase

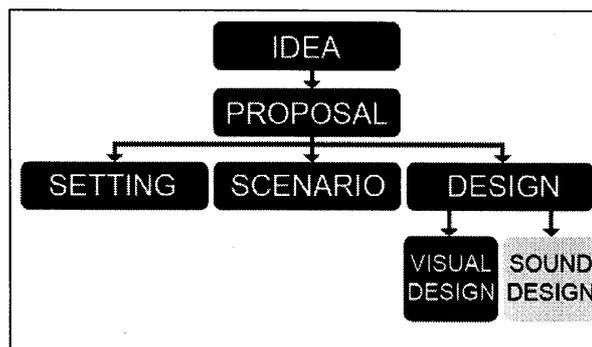


Fig. 2: Pre-production proposal process

The goal of this research is to create a guideline for sound design. The aim of this research is to propose a system whereby the sound design can be done in the early stage of production. This will save time and will also allow the sound design system to guide the novice sound designer.

### 2. RELATED LITERATURE

Since there is no general guideline for notation in sound design, many personalized method exists today. Each individual company designs the sound design document according to their needs. Document includes check sheets such as cue sheet, Foley cue sheet, sound report and many others.

### 3. SOUND DESIGN SYSTEM

Sound design system is divided into proposal information and sound design information. Proposal information contains data such as the title of project, episode title, episode number, length of the project and other information that is in the project proposal. Sound design information contains data such as scene details, background music detail, dialogue, sound effects and other information needed in pre-production sound design.

The sound design tool is made with:

- Interface/Scripting: CSS, HTML, JavaScript and main component with PHP
- Database: MySQL
- Server: Apache

- Browser: Mozilla Firefox

Refer Figure 3 for the overall flow of the system.

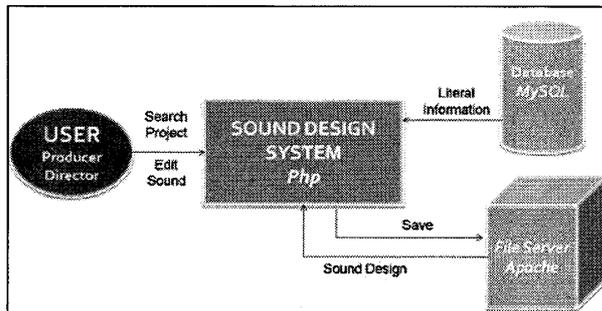


Fig. 3: Sound Design System Structure

### 3.1 Proposal Information System

Proposal Information System has 3 main functions which are add, edit and delete. User can add a new project, edit those details and delete an entire project. The database stores details of proposal, character, setting, and script.

### 3.2 Sound Design Information System

Sound Design Information System is a system that integrates Proposal Information System and computerized sound design sheet. Sound Design System assists the user in sound design by making literal references available at anytime.

To add or edit the sound design, select the ‘Sound Design Project’. Next, search for project details by entering keyword and select the category. The sound design editing page consists of important details from project such as project details, character list, setting list, script, and the sound design panel. The sound design panel consists of scene number, scene, music, Foley, ambience, dialogue, point, comments, persons’ in charge, contact, and submission date. User can also view the completed form with the ‘view’ button next to ‘edit’ button after a search returns some result.

## 4. SYSTEM EXPERIMENT

The sound design system process was done step-by-step in order to test its efficiency and effectiveness.

### 4.1 Experiment Details & Result

The system was tested by editing the sound design part of an existing project in database. All literal information for the project should be in the database.

The sound design database must contain index and scene detail in the database to edit. Sound design elements such as music, Foley, sound effect, ambience, dialogue, crucial scene point, submission date, person in-charge, contact detail, and comments are the fields that require user input. Crucial scene point’s function is similar to ‘reminder’ that is used in Kaneko’s Golden Rules of Scenario Writing [6].

As a result, cue sheet-like form was produced (Figure 4). Details written on the sound design information are project index number, project title, episode name, episode number, airdate, project length, genre, type, production name, submission date, person in-charge of project, contact detail of person in-charge, scene index, scene details, music details, Foley, sound effect, ambience, dialogue, scene point, comments, person in-charge of sound design, contact detail of sound designer, and submission date of sound design.

Scene	Music	Foley	Sound Effect	Ambience	Dialogue	Point	Comments
Little Red Riding Hood was asked by her mother to deliver some bread and wine to her sick grandmother.	Slight music Large bell	Shine bottle, bear step, barrel, bear step, footstep Level, Hornet Level, Hornet		Cloud, water, bird effect, level, level, Fall			
Little Red Riding Hood goes through the woods to deliver the package and wine to her mother.	Slight music Large bell			Water Sound effect level Level, Hornet		Scene as Scene 1	
During the journey, she meets a wolf. The wolf wants to eat her.		Shine, sound and effect		Water level level		Scene as Scene 1	

Fig. 4: Sound Design Information form

### 4.2 Evaluation and Consideration

Overall, the whole process is intuitive and direct. All fields are required to be filled except for comments, and miscellaneous. References can be referred anytime the user needs it. The process of adding, editing and deleting an information will be notified instantly after pressing the submit button. The system needs further improvement with intuitive graphical interface, collaboration feature, integration with existing specialized database for script, character, setting, and the element of sound design can be added for average and professional users.

## 5. CONCLUSION & SUGGESTION

In this research, a system to support sound design in the pre-production phase based on story structure was proposed. In the Sound Design Information System, the user creates a cue sheet-like form by entering the necessary details according to story structure which are scenes in the visual content. By using the system, the user can focus on sound design with literal information prepared in the database by other department.

## REFERENCES

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