

Lo-Fi Prototype Reflection

To understand the Lo-Fi Prototype presented here, it is necessary to understand the work that has led to this prototype.

In our first milestone, we developed a project focus. The goal of our project is to develop a meeting software product that will support people who meet in groups of 5-12 for TechSmith. Additionally, our product should fit into the existing TechSmith software line, ideally taking advantage of TechSmith's strengths in audio recording and screen capture.

In our second milestone, our team conducted interviews with 15 people about their meetings in groups of 5-12 people. We learned information about how they prepare for meetings, how they follow-up after meetings, how they capture meeting information and how they bring information from one meeting to the next. Based on our interviews, we determined that our solution must include:

- Electronic Whiteboard Capabilities
- Electronic Note-Taking and Sharing
- Audio capture, playback and archiving of meetings

In our third milestone, we developed four personas and scenarios with eight different needs. You can see the corresponding solution components generated from the Contextual Inquiry in parentheses next to each need:

- Super Whiteboard (Electronic Whiteboard)
- Remember the Details (Audio Capture)
- Contribute Questions and Comments to Meetings
- Meeting Follow-Up (Electronic Notetaking and Sharing)
- Meeting Software that Supports Existing Meeting Protocols and Equipment
- Capture Meeting Context (Audio Capture)

As you can see from this list, none of our initial solution ideas correspond to supporting meeting contribution or working with existing meeting protocols and equipment. We will discuss these points again in the Lo-Fi Prototype Process section.

To supplement the personas and scenarios, we conducted a survey about meeting patterns and behavior and received responses from 40 people. From this survey we generated the following design ideas based on user needs. You can see the corresponding solution components generated from the Contextual Inquiry in parentheses:

- Support agenda and handout organization
- Support agenda and handout annotation
- Support awkward meeting moments
- Display participants' questions and comments during the meeting
- Archive Questions and Comments for Later Response or Retrieval
- Support Meeting Notesharing (Electronic Note-taking and Sharing)
- Support Context for Notes (Audio Recording)
- Audio Recording (Audio Recording)
- Sync Audio with Handwritten Notes

- Archive Audio Recording (Audio Recording)
- Software Whiteboards (Electronic Whiteboards)
- Meeting Evaluations

As you can see from this list, none of our initial solutions correspond to supporting agenda and handout organization or annotation, supporting awkward meeting moments, displaying and archiving participants' questions and comments, syncing audio with handwritten notes, and evaluating meetings. We will discuss these points again in the next section of the report, Lo-Fi Prototype Process.

Lo-Fi Prototype Process

Our team processed the results from the survey and the personas and scenarios and came up with a prototype that had the following features:

- *Agenda Creation and Annotation:* Each meeting has a strictly formatted agenda that organizers can use to invite participants to meetings and set meeting topics
- *Meeting Timer:* Each meeting has a timer that counts up from the beginning of the meeting.
- *Audio-Recording:* Each meeting can be audio-recorded and the audio is synced with the timer for easy indexing later.
- *File Annotation and Sharing:* Organizers and participants can import files into a meeting and annotate them using tools such as markers, pens, erasers, shapes, symbols and sticky notes. These files can be shared with other meeting participants before during and after the meeting.
- *Electronic Note-taking:* Participants could type in notes in a chatroom-style format. Notes could be tagged as 'task', 'action-item', etc and directed to specific participants. Notes are synced with the meeting timer and audio so that meeting-goers can play audio of a meeting by clicking on a particular note. At the end of each meeting, participants can publish all notes tagged for a particular person, tagged with a particular name or tagged within a particular meeting timeframe.
- *Electronic Note-Sharing:* Notes can be written as public or private so that meeting participants can benefit from one another's notes
- *Participant Question and Comment Display:* Participants can submit questions and comments before and during the meeting. Questions will be archived so that unanswered questions can be addressed at future meetings
- *Electronic Whiteboard:* Organizers and participants can create white board sketches and annotate them using tools such as markers, pens, erasers, shapes, symbols and sticky notes. Drawings can be shared with other meeting participants before during and after the meeting.
- *Participant Status:* Participants can set their status to private, 'Has Question', 'Comment', etc to let others know what their status is.
- *Meeting Summaries:* After each meeting, each participant receives a meeting summary with a list of files associated with each meeting, a list of action items, and the ability to track tasks for others (such as subordinates)
- *Meeting Organization:* Participants can organize their meetings by project or group. They also have the ability to organize files on a server if they wish.

These 11 features address all of the user needs discussed in earlier sections except for working with existing meeting protocol and equipment, meeting evaluation and syncing audio with handwritten notes. Our team did not feel that these needs were as important as the others and they were not mentioned by any of the users who we interviewed as you will see in the next section.

Lo-Fi Prototype Interviews and Revision

After building our initial prototype, the team interviewed four potential users and walked them through the process of creating a meeting, having a meeting and following-up after a meeting. We generated the following list of needs based on the interviews:

- Users want multiple ways to organize projects
- Users want to be able to see their tasks and the tasks of peers they are tracking
- Users want agendas to give them information about what to bring to the meeting
- Users want to add participants to meetings using existing contact groups or regular meeting groups
- Users want to know who is invited to a meeting and who is actually attending
- Users want to know key decisions made at meetings

We revised our original list and added three additional features as shown below:

- *Agenda Creation and Annotation:* Each meeting has a strictly formatted agenda that organizers can use to invite participants to meetings and set meeting topics. **Organizers can add managers for specific meeting topics and ask for questions and suggestions for the meeting. Participants can be added by group.**
- *Meeting Timer:* Each meeting has a timer that counts up from the beginning of the meeting.
- *Audio-Recording:* Each meeting can be audio-recorded and the audio is synced with the timer for easy indexing later.
- *File Annotation and Sharing:* Organizers and participants can import files into a meeting and annotate them using tools such as markers, pens, erasers, shapes, symbols and sticky notes. These files can be shared with other meeting participants before during and after the meeting.
- *Electronic Note-taking:* ~~Participants could type in notes in a chatroom-style format.~~ Notes could be tagged as 'task', 'action-item', '**key decision**' etc and directed to specific participants. Notes are synced with the meeting timer and audio so that meeting-goers can play audio of a meeting by clicking on a particular note. At the end of each meeting, participants can publish all notes tagged for a particular person, tagged with a particular name or tagged within a particular meeting timeframe.
- ~~*Electronic Note-Sharing:* Notes can be written as public or private so that meeting participants can benefit from one another's notes~~
- *Participant Question and Comment Display:* Participants can submit questions and comments before and during the meeting. Questions will be archived so that unanswered questions can be addressed at future meetings
- *Electronic Whiteboard:* Organizers and participants can create white board sketches and annotate them using tools such as markers, pens, erasers, shapes, symbols and sticky notes. Drawings can be shared with other meeting participants before during and after the meeting.
- ~~*Participant Status:* Participants can set their status to private, 'Has Question', 'Comment', etc to let others know what their status is~~
- *Meeting Summaries:* After each meeting, each participant receives a meeting summary with a list of files associated with each meeting, a list of action items, and the ability to track tasks for others (such as subordinates). **Meeting summaries also contain key decisions from meetings.**
- *Meeting Organization:* Participants can organize their meetings by project or group. They also have the ability to organize files on a server if they wish.

- **Screen-Recording of Meetings/Meeting “Tracks”:** Users can capture screen and audio of particular portions of meetings. These “tracks” can be tagged and marked with keywords for easy indexing later.
- **Meeting Information Publishing:** Users can select and bundle different meeting resources such as files, “tracks”, notes, whiteboard drawings, etc. for personal use or for the purpose of sharing with other colleagues
- **Meeting Evaluation:** Participants and groups can view statistics for meetings such as how many meetings a particular group or project has; average number of participants, etc.

Justification for Modifications

- We made the agenda creation process more collaborative because we realized that some meetings might be co-managed and also users in our survey indicated they like to receive suggestions about agendas before meetings if they send them
- We added key decisions as a tag to meetings because one of our users mentioned this and we thought it would allow users more options for marking, searching, and retrieving information after meetings.
- We added screen-recording because we saw it as a way to leverage TechSmith’s strengths and provide users with context for understanding meetings.
- We added meeting information publishing because we saw it as a way to capture meeting information and share it efficiently with others who may or may not have attended the meeting.
- We added meeting evaluation because we realized that the software could easily track statistics on meetings based on the information each user entered; and users in our survey indicated that meeting evaluation would improve meetings as their company
- We removed the social component of notes, comments, and questions because the metaphor of a chatroom was awkward to present to our users. In a 5-12 person meeting, the size is small enough where chatting between 12 people virtually may not be feasible if there is not a meeting organizer to monitor the chats.

The feedback from our class was mostly positive. Some felt that there was too much information and it was hard to follow, but others liked being able to see what the whole product would look like. Based on this feedback, feedback from our client, and team reflection, it is clear that we will need to think carefully about the features that we carry into the Hi-Fi Prototyping Process.

Preliminary Thoughts on Hi-Fi Prototyping

Our team plans to include the following features in the Hi-Fi Prototype with slight modifications:

- Software whiteboard
- Audio and Screen Recording with User-Defined “Tracks”
- Meeting Information Publishing
- Electronic Note-taking
- Meeting Timer

We are still working to determine how to handle agendas and other files that people use during meetings. These files may need annotation and organizing, but we are not sure how or if our software will do this. We are not focusing on meeting evaluations in the Hi-Fi Prototype because we do not see this as a priority for the product. Our next goal is to research TechSmith products and other software to get ideas for how to implement the five features listed here in our Hi-Fi Prototype.