Variations2 Contextual Observations Report :: Installation and Use

Created: November 10, 2004

Last revision: April 4, 2005

Observation dates: September 7, 2004 – October 6, 2004

Principal investigator: Inna Kouper
Co-investigator: Mark Notess
Observers: Dallas Smith, Ryan Scherle, Manoj Kulchanja

This material is based upon work supported by the National Science Foundation under Grant No. 9909068. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.
Executive Summary

After the release of the Variations2 version 3.1 client installer, a series of contextual observations were conducted to identify any possible problems with installation and obtain data on actual use of Variations2 at home. The rationale for this study was to eliminate limitations of the lab environment and simulated tasks in collecting usability data.

During September-October 2004, ten students from different IU School of Music classes installed Variations2 at home while being observed by investigators. All of them were enthusiastic about learning and using Variations2 at home and emphasized the convenience of having access to the music library materials from home. Overall, participants’ experience installing Variations2 and interacting with it can be described as positive. All participants found the installation process easy and intuitive, installing Variations2 without any problems. Furthermore, participants were able to use Variations2 without major interruptions or critical incidents, except for one case where a participant had a localized Chinese version of Windows XP, which could not run Variations2. After Variations2 was changed to support non-English locales, this participant was also able to use Variations2 successfully.

Some of the difficulties encountered are due to the learning curve associated with using new software as well as to confusing interface labels. For example, when participants wanted to get the list of the Beatles albums instead of songs, nobody knew it was necessary to click the “Select all” link in the left corner of the search results. One participant had difficulties changing the color of upper (second-level) bubbles while modifying a timeline. When trying to edit colors in timeline properties window, this participant clicked on button “1” several times and couldn’t understand that it was necessary to click on button “2” to edit bubbles of the second level.

The study also showed that participants preferred a “trial and error” approach in exploring and using Variations2 and didn’t consult the user guide to answer their questions. Participants also tried to minimize their effort in learning Variations2 and accomplishing particular tasks. For example, if instructions were provided in the syllabus, participants followed the instructions and avoided any extra activities. If there were additional questions about Variations2 functionality, participants left them unanswered after few minutes of exploration. But situations with unanswered questions and uncompleted tasks were rare, so all participants expressed a relatively high level of satisfaction with the Variations2 interface and functionality.
# Table of Contents

Executive Summary ................................................................................................................. 2  
Table of Contents ..................................................................................................................... 3  
Purpose of Study ...................................................................................................................... 4  
Method ..................................................................................................................................... 4  
Participants ............................................................................................................................... 5  
Findings .................................................................................................................................... 6  
  Installation ............................................................................................................................ 6  
  Listening .............................................................................................................................. 7  
  Timelines .............................................................................................................................. 8  
Recommendations .................................................................................................................... 9  
Reflections on the Method ..................................................................................................... 13  
Appendix ................................................................................................................................ 14  
  Oral announcement in the class .......................................................................................... 14  
  Context Observations of Installation and Use: Screening Questionnaire ......................... 14  
  T351 Assignment 5 ............................................................................................................ 16
**Purpose of Study**

This study is part of ongoing testing for Variations2: the IU Digital Music Library project (V2 hereafter). Primarily the V2 project is a research project aiming to provide an arena for research in such areas as usability, copyright, metadata, system design, networking and music instruction. The main purpose of this field study is to collect data about actual installation and use of Variations2 as well as identify usability problems users may encounter while working at home with Variations2.

The rationale for this study was to eliminate limitations of the lab environment and avoid simulated tasks in collecting usability data. The data will be used for re-design recommendations in order to improve Variations2.

**Method**

One of the ultimate goals of Variations2 project is to provide a tool that will be intuitive and easy to use for students of various majors (music as well as non-music.) Therefore the target audience of this study consisted of students with music as well as non-music majors.

At the beginning of September investigators visited the IU School of Music classes listed below.

- **Z401**: The Music of the Beatles.
- **M544**: Piano Literature: 1850 to the present.
- **T351**: Music Theory and Literature.

Investigators made a 5 minute presentation about Variations2 and asked for volunteers from each class (see Appendix, p.14) Volunteers who wanted to sign up were directed to the web-based questionnaire to determine background characteristics of participants as well as the characteristics of their computers (see Appendix, p. 14). Before participants could fill out the screening questionnaire, they had to read the study information sheet.

Overall, 21 requests for participation were received from three classes (12 from Z401, 7 from M544, 2 from T351). According to the technical requirements of Variations2 software (256 RAM size, 500 Mhz processor speed), ten students were selected (4 from Z401, 4 from M544, 2 from T351). Seven out of 9 rejected volunteers didn’t meet the requirements, and the other two volunteers decided not to participate.

The study was designed in a form of contextual inquiry (CI), which primarily consists of watching users doing their work and interacting with them during their work. Each observation session consisted of the following sections:

1. **Orientation.** Upon arrival at participant’s home, the investigator briefly explained the purpose of the study and the procedure.
2. **Observation of installation.** The investigator(s) observed a participant during the V2 installation process, occasionally asking a participant about what he or she was doing.
3. **Observation of use.** Participants were given the choice of having their V2 use observed either during the same session in which they installed V2 or during a subsequent session. All participants except 2 decided to be observed in a single session. In these cases the investigator(s) simply continued the observation session after Variations2 was installed. For the participants who wanted to use V2 later, an additional session was
scheduled. During these sessions the investigator(s) observed a participant working with V2, made notes and occasionally asked a participant about what he or she was doing.

4. Summarization. In this phase the principal investigator summarized what had been observed, testing her interpretations. Then she asked permission to take photographs of the environment (not the person) and took photographs.

Basically, participants were observed in an unobtrusive way: investigator(s) tried neither to assist the user unless circumstances demanded intervention nor to change any settings on the computer or environment. At the same time, investigators asked as many questions as needed to make sure they understood the participant’s actions. During observations investigators also took notes. After all observations were completed, notes were transcribed and analyzed. To identify patterns of use, work notes were sorted into logical groups of activities and functions. Sequence modeling was used to show the activities participants undertook and the steps involved.

**Participants**

As illustrated in the Table 1 below, participants had various majors such as business, finance, piano and music education. Seven of them were females, three – males. Most of participants rated their PC experience as close to expert, while Mac experience was rated lower. On a scale from 1 to 5, with 1 being Novice and 5 being Expert, the mean result for PC use was 3.8 ranging from 1 to 5 and for Mac use was 2 ranging from 1 to 5.

<table>
<thead>
<tr>
<th>#</th>
<th>Gender</th>
<th>Major</th>
<th>Internet connection at home</th>
<th>Computer’s RAM size (Mb)</th>
<th>Computer’s processor speed</th>
<th>Computer experience (1=novice - 5=expert) PC</th>
<th>Mac</th>
<th>Computer’s operating system</th>
<th>Comfortable with installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>female</td>
<td>management</td>
<td>DSL</td>
<td>256</td>
<td>2.66 Ghz</td>
<td>4</td>
<td>2</td>
<td>Windows XP</td>
<td>very</td>
</tr>
<tr>
<td>2</td>
<td>male</td>
<td>business</td>
<td>DSL</td>
<td>512</td>
<td>2.8 Ghz</td>
<td>4</td>
<td>1</td>
<td>Windows XP</td>
<td>very</td>
</tr>
<tr>
<td>3</td>
<td>female</td>
<td>telecommunications</td>
<td>DSL</td>
<td>240</td>
<td>2 Ghz</td>
<td>3</td>
<td>1</td>
<td>Windows XP</td>
<td>somewhat</td>
</tr>
<tr>
<td>4</td>
<td>male</td>
<td>public finance</td>
<td>DSL</td>
<td>812</td>
<td>2 Ghz</td>
<td>4</td>
<td>1</td>
<td>Windows XP</td>
<td>very</td>
</tr>
<tr>
<td>5</td>
<td>female</td>
<td>piano</td>
<td>DSL or cable</td>
<td>640</td>
<td>900 Mhz</td>
<td>4</td>
<td>4</td>
<td>Mac OSX</td>
<td>very</td>
</tr>
<tr>
<td>6</td>
<td>female</td>
<td>piano</td>
<td>DSL or cable</td>
<td>512</td>
<td>1.6 Ghz</td>
<td>5</td>
<td>1</td>
<td>Windows XP</td>
<td>very</td>
</tr>
<tr>
<td>7</td>
<td>female</td>
<td>piano</td>
<td>DSL or cable</td>
<td>512</td>
<td>2.4 Ghz</td>
<td>4</td>
<td>1</td>
<td>Windows XP</td>
<td>very</td>
</tr>
<tr>
<td>8</td>
<td>female</td>
<td>piano</td>
<td>DSL or cable</td>
<td>256</td>
<td>1.8 Ghz</td>
<td>1</td>
<td>1</td>
<td>Windows XP</td>
<td>somewhat</td>
</tr>
<tr>
<td>9</td>
<td>male</td>
<td>music education</td>
<td>ISDN</td>
<td>384</td>
<td>800 Mhz</td>
<td>5</td>
<td>5</td>
<td>Windows XP</td>
<td>very</td>
</tr>
<tr>
<td>10</td>
<td>female</td>
<td>music education</td>
<td>DSL or cable</td>
<td>256</td>
<td>2.4 Ghz</td>
<td>4</td>
<td>1</td>
<td>Windows XP</td>
<td>very</td>
</tr>
</tbody>
</table>
8 out of 10 participants reported that they were very comfortable installing software.

**Findings**

The findings below are organized into three sections. The first section describes observations regarding the installation process. The second section provides observations and summaries of listening activity. Finally, the third section summarizes observations of using the timeliner tool as well as creating timelines. In cases where specific qualitative comments are presented, each comment is designated by a number which references the associated user. For example, a comment made by participant number 4 is represented by “[4]”.

**Installation**

Variations2 installation was easy for participants to understand and accomplish. There were no unusual or critical system messages during installations. Installing on a Mac computer consisted of copying and extracting files; the only Mac user among the participants was successful. For PC users the installation took a bit longer as they had to start a setup file and click through several screens to confirm their choices. The sequence of steps and choices for PC installation is presented below.

1. Insert installation CD
2. Start Windows Explorer
3. Start setup.exe
4. Welcome screen – click “next”
5. Accept screen – read and click “next”
6. Prerequisites screen – read and click “next”
7. User name screen – type and click “next”
8. Destination folder – check and click “next”
9. Install confirmation – click “install”
10. Finishing installation – click “finish”

Participants went through the installation windows very quickly, assuming that everything was standard and there was no need to read through the screens or change any information. Only one participant out of nine read the license agreement and prerequisites screen. Another one changed the destination folder due to the lack of space on the hard drive. Some participants asked the investigator additional questions about the user name screen (in bold on the sequence scheme) but when asked to behave as they normally would, 8 out of 9 participants left it as it was. One participant changed the username to the IU username.

One time Variations2 installed without any warnings but then didn’t start at all. The cause of failure was that V2 didn’t work with a localized Chinese version of Windows XP. Changes in
the installer fixed the problem and the participant was able to re-install and start Variations2. All other participants were able to start Variations2 and log in successfully upon completing the installation. Even though all installations were almost identical and went without any warnings or system messages, starting the application differed. Those who hadn’t had QuickTime installed got the QuickTime settings window appearing along with Variations2 itself. Participants usually ignored this window and continued working with Variations2. Those who had had QuickTime previously installed didn’t get a QuickTime settings window popping up. The common behavior during installations was to ignore system information as long as everything was working or seemed to be working fine.

### Listening

All participants except one were using Variations2 for the first time; therefore investigators expected a separate exploration phase followed by other activities such as listening and timeline use. However, all participants immediately started searching for assigned recordings using the basic search or followed bookmarks from the online syllabus to listen to the music. Partially this goal-oriented behavior can be explained by the relatively high computer literacy of participants (only one participant reported being a novice with PCs). Another explanation may be the intuitiveness of Variations2 interface. As soon as participants saw the search window, they confidently entered necessary keywords to try it out. All participants commented that they prefer the “trial and error” approach and don’t like to read manuals or user guides.

Because participating students were from different classes, they used V2 differently. All participants listened to music. But four of them listened without doing anything else in V2, while four others used timelines to guide their listening and tried to modify existing timelines while listening; two other participants listened in the timeliner tool to create their own timelines. In order to generalize the sequence of participants’ listening activities, a consolidated sequence model is presented below:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>Get syllabus (paper or online)</td>
</tr>
<tr>
<td></td>
<td>Select a piece to listen to</td>
</tr>
<tr>
<td></td>
<td>Start application</td>
</tr>
<tr>
<td></td>
<td>Log in</td>
</tr>
<tr>
<td></td>
<td>Search for a piece</td>
</tr>
<tr>
<td>Listen</td>
<td>Listen in the player (click on a link in the search window or open a</td>
</tr>
<tr>
<td></td>
<td>bookmark)</td>
</tr>
<tr>
<td></td>
<td>Create / open a playlist</td>
</tr>
<tr>
<td></td>
<td>Listen from the playlist</td>
</tr>
<tr>
<td></td>
<td>Jump between parts of a piece, tracks, containers</td>
</tr>
<tr>
<td></td>
<td>View details</td>
</tr>
<tr>
<td></td>
<td>Take notes in the syllabus or a sheet of paper</td>
</tr>
<tr>
<td>Other</td>
<td>Click on Variations2 menu options</td>
</tr>
<tr>
<td></td>
<td>Open / close Variations2 windows, click on buttons</td>
</tr>
<tr>
<td></td>
<td>Check e-mail</td>
</tr>
<tr>
<td></td>
<td>Browse internet</td>
</tr>
<tr>
<td></td>
<td>Chat</td>
</tr>
<tr>
<td></td>
<td>Watch TV</td>
</tr>
<tr>
<td></td>
<td>Do assignments for other classes</td>
</tr>
</tbody>
</table>
The model above represents an idealized sequence of participants’ activities. In reality the listening was more of the haphazard nature without chronologically ordered preparation, listening and finishing up. Thus, some participants forgot about the syllabus and searched for pieces they remembered, listened to them and then went to get the syllabus. Others opened a bookmark and while the application was loading, browsed internet or checked e-mail. All activities other than listening (“Other” in the table above) were started and stopped many times during the observation sessions.

On average there were four windows open simultaneously, usually including Internet Explorer, the Variations2 search window, Variations2 player window 1 and Variations2 player window 2. Windows with details were usually opened and closed after being read. While there was not any observed confusion related to windows management, two participants complained that if they wanted to keep several players open, the task bar became cluttered.

Participants who had some experience with music players noticed the playlist function right at the beginning and spent some time creating and opening playlists (“Oh! I can create my own playlist. That’s neat [2]”) Two participants asked about a shuffling option to listen randomly to the pieces they compiled into the playlist.

Overall, participants were satisfied with high quality of recordings and the possibility of combining listening with other activities at home (“It’s such a hassle to go to the library to listen to the music [3]”).

**Timelines**

As is mentioned above, four participants used timelines made by the instructor to guide their listening, and two participants created timelines as a part of their assignment. As the listening patterns were described above, this section will discuss creating / changing timelines.

Creating timelines was a more structured activity than mere listening. It involved focused listening, reading and marking the score, analyzing the audio and the score, and creating a visual model. As students tried to stay focused and accomplish the assignment, no parallel activities unrelated to these could be performed at the same time.

According to participants’ comments, without Variations2 they listened to the audio with a score book and then drew a timeline with pencil and paper marking starting measure numbers for each structural part. With Variations2 they said they were able to create timelines faster by marking certain timepoints while listening; however, they still needed to analyze the score. Asked if it would be more convenient to have scores on the screen along with the audio, participants said they still would have printed the scores unless the process of marking the score would be as efficient as just one mouse click (“… if I could make marks on the scores as quickly as on the timeline that would be interesting [5]”)

To create new timelines participants followed detailed instructions provided by the teacher (see Appendix, p. 16). Instructions explained how to search for a piece, how to launch the timeliner tool, how to create bubbles and annotations, and how to modify the timeline. Additionally, the instructor had given a demonstration on using Variations2 timeliner tool in class. Both participants used the timeliner tool without any difficulties as if they had used it before. When asked about ease of use, both commented that even though instructions made creating timelines easier and faster, the Variations2 interface seemed intuitive enough to understand necessary
actions without external help (“To me it seems like pretty simple program [5]”). However, it seemed that none of them distinguished timepoints labels from marker labels. To add measure numbers indicating the beginning of each bubble participants used markers and their labels.

The sequence model for creating a timeline can be presented as follows:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>Get the syllabus</td>
</tr>
<tr>
<td></td>
<td>Get the score</td>
</tr>
<tr>
<td></td>
<td>Open online instructions</td>
</tr>
<tr>
<td></td>
<td>Start Variations2</td>
</tr>
<tr>
<td></td>
<td>Log in</td>
</tr>
<tr>
<td></td>
<td>Search for required piece</td>
</tr>
<tr>
<td>Creating timeline</td>
<td>New timeline for the selected piece</td>
</tr>
<tr>
<td></td>
<td>Listen to the piece</td>
</tr>
<tr>
<td></td>
<td>Read instructions</td>
</tr>
<tr>
<td></td>
<td>Follow the score and mark while listening</td>
</tr>
<tr>
<td></td>
<td>Listen from the beginning</td>
</tr>
<tr>
<td></td>
<td>Add / remove timepoints, labels and annotations</td>
</tr>
<tr>
<td></td>
<td>Change bubble, label and annotations settings</td>
</tr>
<tr>
<td>Wrapping up</td>
<td>Close timeline tool (asked to save)</td>
</tr>
<tr>
<td></td>
<td>Save timeline</td>
</tr>
<tr>
<td></td>
<td>Close Variations2</td>
</tr>
</tbody>
</table>

Even though creating timelines was more structured than listening, it also involved cycles of actions as participants moved between reading instructions, adding / removing timepoints and labels, listening and reading the score and editing timepoints and labels again. While doing all this, both participants forgot to save timelines and did it only after a V2 reminded them when they were trying to close the window or program. Both commented that it would be nice to have an autosave feature.

**Recommendations**

Even though during observations there were no critical incidents that interrupted listening and timeline creating sessions for a long period of time or completely, certain incidents can be characterized as breakdowns. These breakdowns were either solved by participants or skipped as unimportant. These interruptions and difficulties are described below, followed by recommendations for each of them.

Recommended improvements are organized by the importance (with the most important issues being at the beginning of the list). The importance is also indicated as follows:

<table>
<thead>
<tr>
<th>Importance</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[high]</td>
<td>Importance is high. The issue prevented users from making progress or led to severe mistakes</td>
</tr>
<tr>
<td>[medium]</td>
<td>Importance is medium. The issue caused confusion, inefficiency, or minor mistakes</td>
</tr>
<tr>
<td>[low]</td>
<td>Importance is low. The issue causes slight amounts of confusion or dissatisfaction</td>
</tr>
</tbody>
</table>
1. **Issue: users didn’t find how to get a list of albums [high].**
Listening to the Beatles in preparation for their class, three participants wanted to get a list of albums instead of lists of songs in the search window. Nobody could find how to do this by “trial and error” approach and actually stopped trying after two or three unsuccessful clicks. (“It seems that this is a list of all songs. How do I get albums? I guess I can search for albums… <searches and gets a list of songs> Oh, well…<switches to something else>” [4]).

**Recommendations**

Provide a more obvious way to get the list of albums (e.g. by changing the name of a link to the upper level from “Select all” to a more meaningful one. Considering that this link appear when searching for a composer, performer, work title or any other keyword, the link should either reflect the general “upper level” meaning, for example “Show all works” or be specific to particular searches, for example “Show list of albums.”)

2. **Issue: antivirus and firewall programs attempt to block Variations2 [medium].**
Five participants had either antivirus or firewall programs on. These programs not only alerted the user during installation but also gave several warnings during the first few minutes of working with Variations2. While these warnings made participants to interrupt their work for few seconds to read warnings and cancel them, it seemed to be a routine operation and not an annoying disturbance.

**Recommendations**

To avoid any possible frustration it may be necessary to provide an additional warning during installation or a paragraph in the user guide explaining what kind of decisions users are expected to make when their antivirus and firewall programs attempt to block Variations2.

3. **Issue: search returns no results due to too restricted search criteria, misspellings or wrongfully placed keywords [low].**
Several participants failed to find Beatles songs because they typed “Beatles” into Creator / Composer field. Two participants failed to find required pieces from the first try because of misspellings. Two other participants set too restricted criteria and got no results for their search.
Recommendations

Even though this issue can be resolved by users after several attempts, providing more detailed and user-oriented search tips can help to reduce confusion. For example, the message displayed when the search didn’t return any results can be as follows:

<table>
<thead>
<tr>
<th>Your search - &quot;&lt;search criteria&gt;&quot; - did not match any works in Variations2.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suggestions:</strong></td>
</tr>
<tr>
<td>- Make sure all words are spelled correctly.</td>
</tr>
<tr>
<td>- Make sure you typed words in the correct fields.</td>
</tr>
<tr>
<td>- Try different keywords.</td>
</tr>
<tr>
<td>- Try more general keywords.</td>
</tr>
</tbody>
</table>

Other information such as number of matches for each keyword (e.g. 1 Creator matches "brahms", 110 Work Titles match "sonata", 581 Work Titles match "no", 228 Work Titles match "3") may not be necessary as it doesn’t help users to correct their search.

4. **Issue: changing bubble level colors [low].**

One participant had difficulties changing the color of upper (second-level) bubbles while modifying a timeline. Trying to edit colors in timeline properties window this participant clicked on button “1” several times and couldn’t understand that it was necessary to click on button “2” to edit bubbles of the second level (see the figure below).

![Figure 1. Changing bubble level colors.](image)

**Recommendations**

Even though this difficulty can be associated primarily with a learning curve, providing a short explanation in parenthesis after words Bubble Level Color (e.g. “click on the number to change bubble color of corresponding level”) or adding similar tool tips can help to reduce possible confusion.
5. **Bubble labels font size and color [low].**
Participants who created timelines didn’t know how to manage labels font size and color. When they changed bubble colors to darker ones, the black text became almost invisible so they had to change it back because there was no option to change text color. When the bubble itself was small participants wanted to reduce the font size, which also was unfeasible.

**Recommendations**

Provide a possibility to change text color and size. If it’s difficult to implement, reduce the bubble colors palette to match black text color in order to be readable.

6. **Issue: timeline autosaving [low].**
Two participants who created timelines commented that it would be nice to have an autosave feature.

**Recommendations**

Provide autosave for timelines.
Reflections on the Method

The study was designed so that participants would be observed in their natural environment doing the work they would normally do. However, it wasn’t possible to avoid the awkwardness of the observers’ presence. Even though participants were briefed on the procedure and asked to ignore the observers, some of them seemed to be nervous and asked several times “So what do you want me to do?” They tried to do something “meaningful” in the eyes of observers so that observers had to ask again and again that participants behave as if the observers were not there. Thus, at the beginning of one session a participant was listening to the music and looking at the screen without doing anything. Later it turned out that listening usually happened as a background activity along with other activities. Asked to do so, this participant still hesitated and it seemed that other activities were still “for show.”

To remove tension in such situations it would be necessary to stay longer with participants and become more acquainted. However, closer relations caused another problem. Participants who chose to have two sessions instead of one tried to engage investigators in conversations unrelated to the study without doing anything with Variations2. It took time to get them back into Variations2 and to persuade them to do the necessary work. Again it was not clear in such situations whether the “natural” environment was re-created or not.

One significant limitation of this study is the sample size and users characteristics. The sample of this study was rather small and heterogeneous. Thus, only two participants worked on timelines. At the same time because the participants were volunteers, it was not possible to get the desired variance of certain characteristics such as level of computer literacy. This may reduce the ability to generalize results and require further studies.

Overall, the method seems to be worthwhile to collect data about how users use Variations2. It also allows to see how other activities and activities related to Variations2 are organized in the users’ work. However, this method can be less effective in testing particular interface features where all users should be provided with the same environment and tasks. Therefore, unless the same tasks are developed for all participants, this method is more appropriate for general inquiries about the nature and patterns of user activities as well as about grounds of their cognitive decisions. Lab testing would be more appropriate for finding usability problems with particular components of the software and providing recommendations.
Appendix

Oral announcement in the class

We are working on the newest version of the Variations software, called Variations2. With Variations2 one can search for and listen to sound recordings, as well as browse and display scores; so we would like to get an idea of how easy it is to install it and how people actually use it.

We need volunteers who will allow us to come to their homes and watch how they install and use Variations2. It can be done in one 3-hour session (if you are ready to work with it immediately after you install it) or in two 1.5-hour sessions (if you would like first to install it and to use it later.) In exchange for your participation you can listen to the music in Variations2 from your computer during the class.

To sign up for this study we ask you to go to the http://variations2.indiana.edu/pilot/install/sis.html, fill out the questionnaire and leave your name, email address, and the week you would like to participate. We will then contact you by email to set up a session time.

Thank you!!

Inna Kouper
Principal Investigator (PI)
inkouper@indiana.edu

Context Observations of Installation and Use: Screening Questionnaire

You are here because you have chosen to participate in the Variations2 context observation study. Please provide your name and e-mail and answer the questions below. Press the [Submit] button at the end of the survey when you are finished. We will contact you later to set up session time.

Your name: _____________
Your e-mail: ____________

1. What is your age range?
   - Under 20
   - 20 - 25
   - 26 - 30
   - 31 - 35
   - 36 - 40
   - 41 - 50
   - Over 50

2. What is your major? (e.g. biology, piano, etc.) _____________

3. Are you male / female? (choose one)
   - Male
   - Female
4. How do you normally connect to the Internet from home?
   - Dial-up Modem (please list average connection speed below)
   - ISDN
   - DSL or Cable Modem
   - Other

5. If you connect using a Dial-up Modem, what is your average connection speed? (e.g. 28Kbs, 36Kbs, 48Kbs...) ___________________

6. If "Other" was selected in the question 4 above, please describe your Internet connection here. Otherwise continue to the next question.

7. How comfortable are you with installing software on your computer?
   - Very comfortable
   - Somewhat comfortable
   - Not very comfortable
   - Very uncomfortable
   - I have never installed software on a computer before
   - I am not allowed to install software on the computer I use

8. What Operating System do you use on your home computer?
   - Windows XP
   - Windows 2000
   - Windows Me
   - Windows 98
   - Windows NT
   - Windows 95
   - Mac OS X
   - Mac OS 9 or older
   - Linux
   - Other (please list below)

9. If "Other" was selected above, please type your Operating System here. Otherwise continue to the next question.____________________________

10. Rate your computer experience on the following systems by choosing 1-5 below:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. PC: Novice</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Macintosh: Novice</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

11. What is the memory (RAM) size* in your computer? (e.g. 128 Mb) ____________________
12. What is your computer's processor speed*? (e.g. 450 Mhz) _________________

*To learn how to check the processor speed click here

13. Are you available for in-home observations in September or October?

☐ Yes  ☐ No

Thank you for your time!

**T351 Assignment 5**

Fall 2004

Due Date: 1:25 p.m. Monday, 4 October 2004

This assignment is a preliminary exercise to writing a "pseudo-paper" on the topic, "Hindemith remaking the past." The premise of the paper will be that Hindemith is using the basic framework of the classical sonata-allegro form, but adapting it to his own 1930s compositional style.

Using Variations2, you are to create a form diagram of Hindemith's Sonata No. 2, Mvt. 1. You have a score of the movement in Burkhart, from p. 493. Here are step-by-step instructions to follow:

1. Launch Variations2
2. In the Search Window, do a search for Hindemith (composer) and Sonata (work title)
3. Select Sonata No. 2
4. Select either of the two recordings
5. In the Player window, you can stop the playback by clicking the Pause button. In the track list at the bottom of the Player window, right-click (Mac: ctrl-click) the name of the movement and select New Timeline
6. In the New Timeline window, be sure the correct track is selected and change the title to "Hindemith, Sonata No. 2, Mvt. 1 (your_last_name)" (substituting your name). Leave the other settings as they are. Click OK.
7. Create a form diagram of the movement, fitting it as the music allows into a sonata-form interpretation. You may wish to listen several times, following the score. Creating the timeline will involve doing the following:
   a. Adding timepoints to create bubbles indicate the beginnings of new phrases and sections.
   b. Grouping bubbles together to indicate the larger sections of sonata form
   c. Adding labels for each timepoint indicating measure numbers.
   d. Adding labels to each bubble indicating its formal function.
8. As you work, regularly save the timeline to a safe place (your student locker, for instance).
9. When you are finished, do two things:
   a. Print the timeline (select Color or Grayscale) to turn in on the due date.
b. Email the timeline file (it will have an .v2t extension) to Prof. Isaacson as an attachment. Please include the word "timeline" somewhere in your subject line!

Here is a timeline of a Beethoven sonata movement you may use as an example. Don't worry about the annotations at this point. You will add those as part of pseudo-paper. (If you want to add some as notes to yourself, that's fine. They won't be factored into the grade.)

Some Timeliner Tool hints:

- You can reposition timepoints by dragging them along the timeline.
- You can remove a timepoint by selecting it and clicking Delete, or simply by dragging it off the timeline.
- If you need to make fine adjustments, you can select one or two bubbles and click Zoom to Selection. Click Fit to Window to display the whole diagram.
- You group bubbles by selecting two or more and clicking Group.
- You can add a label to a timepoint or a bubble by double-clicking it. In the screen that pops up, you can use the navigation buttons to move to the next or previous timepoint or bubble.
- The most common modifications can be made by right-clicking a bubble or timepoint on the diagram.