

PERSONALITY TRAITS AND USER BEHAVIOR

A Thesis

by

CHRISTOPHER RONALD KING

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

December 2011

Major Subject: Computer Science

Personality Traits and User Behavior

Copyright 2011 Christopher Ronald King

PERSONALITY TRAITS AND USER BEHAVIOR

A Thesis

by

CHRISTOPHER RONALD KING

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Approved by:

Co-Chairs of Committee,	Frank Shipman William Lively
Committee Members,	Selma Childs Jon Jaspersen
Head of Department,	Duncan Walker

December 2011

Major Subject: Computer Science

ABSTRACT

Personality Traits and User Behavior. (December 2011)

Christopher Ronald King, B.S.; B.A., Texas A&M University

Co-Chairs of Advisory Committee: Dr. Frank Shipman
Dr. William Lively

Psychologists and human resources personnel have used personality profiling as a predictor of human behavior in various environments for many decades. Knowing the personality traits of a particular individual allows management to tailor an environment ideally suited for an individual, attempting to maximize a person's productivity and job satisfaction. Measurements of personality are classically achieved through a self-reporting survey. This method has a potential inaccuracy due to its lack of objectivity and a bias due to cultural influences. This research explores the relationships between specific computer user behavior patterns and personality profiles. The results may provide a partial map between personality profile traits and computer user behavior.

In an attempt to discover such correlations, forty-five fraternity and sorority students from Texas A&M University were selected to participate in a personality survey and three computer based tests. One test measured the subject's perceptive abilities, another measured their decision-making requirements, and a third measured their methods employed in organizing a task.

The results show conclusively that some personality profile traits do influence how people visually interpret information presented on a computer screen. Individuals

who exhibit high conscientiousness or agreeableness scores on a personality assessment survey take less time to find an icon among a collection during an icon search test.

However, the results also show a significantly large variability in individuals, indicating that many other factors may influence attempts to measure an individual's personality traits. This indicates that the tests presented in this study, even though they show that behavior is related to personality traits, cannot be used as diagnostic tools. Further research will be required to obtain that goal.

DEDICATION

To my wife, without whose continual encouragement, devotion and love, this would not have been possible

TABLE OF CONTENTS

	Page
ABSTRACT	iii
DEDICATION	v
TABLE OF CONTENTS	vi
LIST OF FIGURES	viii
LIST OF TABLES	ix
1. INTRODUCTION	1
2. EXECUTIVE SUMMARY	3
3. STATEMENT OF PROBLEM	4
4. HYPOTHESIS - RATIONAL	6
5. LITERATURE REVEIW	8
5.1 Initial Work in Personality Profiling	8
5.2 Current User Modeling Using Personality Profiles	10
5.3 Earlier Similar Studies	10
6. METHODOLOGY	12
6.1 Overview	12
6.2 Personality Assessment Tool	13
6.3 Icon Search Task	14
6.4 Decision-making Task	15
6.5 Organizational Task	17
6.6 Testing Environment and Equipment	20
7. STATITISTICAL ANALYSIS	22
7.1 Method	22
7.2 Limitations of the Data	22

	Page
8. RESULTS	24
8.1 Results of the Icon Search Task	24
8.2 Conclusions of the Icon Search Task	28
8.3 Results of the Decision-making Task	29
8.4 Conclusions of the Decision-making Task	32
8.5 Results of the Organizational Task	32
9. CONCLUSIONS	33
REFERENCES	35
APPENDIX A	37
APPENDIX B	41
APPENDIX C	43
APPENDIX D	44
APPENDIX E	46
APPENDIX F	60
APPENDIX G	61
VITA	63

LIST OF FIGURES

	Page
Fig. 1. Example Icon Search Screen	15
Fig. 2. Decision-Making Interface	16
Fig. 3. Project Tracker Main Screen	18
Fig. 4. Project Tracker Project Form	18
Fig. 5. Project Tracker Job Form	19
Fig. 6. Search Times for Static vs. Animated Screens	25
Fig. 7. Comparisons of Upper and Lower Conscientiousness Populations	26
Fig. 8. Comparisons of Upper Quartile and Lower Quartile Conscientiousness Populations	27
Fig. 9. Comparisons of Upper and Lower Agreeableness Populations	28
Fig. 10 Comparisons of Upper Quartile and Lower Quartile Agreeableness Populations	28
Fig. 11. Conscientiousness vs. Average Time Reviewing an Answer	30
Fig 12. Extraversion vs. Total Time Reviewing Answers to Questions	31
Fig. 13. Conscientiousness vs. Number of Questions Reviewed	32

LIST OF TABLES

	Page
Table 1 Results of ANOVA Analysis	26
Table 2 Pearson Correlation Coefficients, N=26 Prob > r under HO: Rho=0	29

1 INTRODUCTION

Current practice in obtaining personality measurements is accomplished by using a personality assessment survey. Results of these surveys are limited to the qualitative realm, relying on an individual's subjective interpretation of experiences and understanding of the definitions of terms. This method poses a problem in that human experiences and their interpretation are not objectively reliable. It is known for example that some of the personality measurements are subject to the culture in which the person has developed from childhood, including the language they speak. Meanings of the terms presented on a personality survey are dependent on the cultural definitions, which can vary. Any attempt to measure personality without these influences needs to be accomplished by measuring the traits via other objective proxy measurements, which are unconscious to the individual.

It is widely accepted that the personality of an individual is developed as a result of those traits we inherited combined with a set of life experiences. Individuals use their cognitive and physical resources as tools to directly interact with the world. Experience via trial and error coupled with feedback forms our habitual methods used to achieve our goals. This process eventually shapes people's personalities.[1] Measuring these two inputs, tools and methods, may provide a means of objectively determining an individual's personality traits. Cognitive and perceptual resources such as precognitive

This thesis follows the style of Computer-Aided Design.

awareness are relatively easy to measure with a computer. Life experiences are much more difficult to measure. However, methods used to accomplish goals are measurable. These methods are manifested in how people approach the world around them and interact with it. The past few decades have enabled a world where people are interacting more and more via computer interfaces. User profiling should therefore be able to measure individual user's habits along with their cognitive skills and form a reasonably accurate assessment of a user's personality profile. This of course would depend on research such as this, which can yield an accurate cross-reference map of specific behaviors which are accurate indicators of personality traits.

2 EXECUTIVE SUMMARY

Research has shown that personality profile traits are highly related to human biological traits. These traits, coupled with life experiences, shape an individual's personality. This personality is what guides their behaviors. The intent of this research is to measure a limited set of individual user's cognitive traits and behaviors while using a computer interface. This research is then intended to show that these measurements have the potential to be used as proxy measurements of user's personality profiles.

This study explores three specific methods of measuring behavior as well as measuring the personality profile of participants. The data gathered is then analyzed to determine if there exists any strong correlations between the measured behaviors and the measured personality profile traits.

3 STATEMENT OF PROBLEM

Personality profile measurement tools lack objective accuracy due to using self-descriptive survey tools currently presented in the form of a survey, usually completed by an individual being measured. The results are dependent on definitions of terms making them dependent on the individual's vocabulary skills as well as historical background, since such definitions vary across cultures, affecting accuracy. Additionally, measurements of personality traits through such self-reporting techniques pose a set of complex social and psychological problems, which may influence the accuracy of the results. People do not always trust the tool or those administering it, fearing they might be misjudged, thus may not provide objectively honest information. It would be reasonable to assume that individuals might wish to adjust the outcome of such a tool, if it were thought that by doing so the individual would gain some advantage, posing as a personality other than their own. Some personalities in particular are by nature suspicious of being measured in the first place. Others are naturally competitive and would want to gain some advantage. Thus the very things that are being measured have the potential to modify the results. A method to measure a person's personality that did not rely on self-reporting would be valuable if it were passive and objective.

A personality profile is considered to be the classification of the methods and techniques developed and employed by an individual to interact with their environment. It is reasonable to assume that recording the actions of an individual while they interact with their surroundings would provide an objective measurement. However, capturing

all of the necessary data on a person would prove difficult and thus would not be reasonably practical on a scale that could be used in the time frame of a job interview. Additionally, unless a mapping was available which reliably converted specific actions into reasonably accurate personality profile scores, the recorded data could not be interpreted.

Another method is to attempt to map how a personality is developed by measuring the physical and cognitive traits of an individual, which lead to the development of a particular personality. The Handbook of Personality states “personality traits are exclusively biological in origin.”[2] However, other research indicates that individual personalities are modified over time[3,4], indicating life experiences play some role. It is therefore reasonable to assume that a person’s personality is developed as a result of their biology combined with their life experiences. Experiences in life differ from person to person, but for the most part are quite similar for individuals within the same society, culture, and demographic group. The remaining influencing factors are physical, not limited to genetics passed on from ones parents, but including those derived from environmental factors. Some of these physical traits, particularly extreme traits, can be very influential in an individual’s personality development. For example, people with reduced visual abilities are known on average to have lower Extraversion scores. [4] People with poor color discrimination and hearing sensitivity tend to have on average increased Neuroticism scores.[5]

4 HYPOTHESIS - RATIONAL

The basic premise of this research is that there exist specific actions that can be measured on an individual basis by a computer interface and provide a proxy measurement of an individual's personality profile.

If a method of measuring a user's personality were dependent on unconscious actions of a user, then the personality profile of a user could be determined by measuring these unconscious actions. To accomplish this, an accurate correlative map must be determined between these unconscious actions and personality profile traits. This research attempts to determine if such correlations exist by measuring personality profiles as well as performance measurements on computer-based tasks. These measurements will then be statistically analyzed to determine if correlations exist.

The justification for this approach is based on the assumption that individual personality traits are a result of physical capabilities an individual possesses coupled with a set of developed methods to interact with the world. A person with a natural strength would more likely develop a personality that uses the strength to maximize their success in dealing with their environment. This should be manifested in the subtle behavior habits they form.

Individual differences in users' behaviors are often subtle and unconscious to individuals and can be measured fairly accurately. Using proxy measurements makes the user unaware of what is being measured, eliminating the chance that social considerations will bias the results.

In the realm of computer interface design, under the category of user modeling methods, measurements of user activity can be continually monitored providing information to interface designers who aim to build interfaces that maximize the effectiveness of the user's experience.

In this study, the personality profiles as well as measurements of interactions while attempting to accomplish certain tasks was measured on forty-seven volunteers. The data was then reviewed to find any statistically relevant correlations between the measurements and personality profile traits.

5 LITERATURE REVIEW

5.1 Initial Work in Personality Profiling

Personality profiling started in the early part of the twentieth century during which time tools such as the well-known Myers-Briggs personality profile were developed. Katharine Cook Briggs and her daughter Isabel Briggs developed Myers-Briggs based on models proposed by Carl Jung in 1921[6]. Their intent was to develop a profiling method during WWII to determine where women would be “most comfortable and effective” in wartime jobs. This test, like many of the time, was criticized for not having valid convincing data to support the theoretical claims.

In the later part of the century, there was an attempt to more clearly validate personality profiling methods using language taxonomy.[7] In so doing, five major categories were determined. These are Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. Described here:

- Openness (O) to Experience/Intellect – High scorers tend to be original, creative, curious, complex; Low scorers tend to be conventional, down to earth, narrow interests, uncreative.
- Conscientiousness (C) – High scorers tend to be reliable, well-organized, self-disciplined, careful; Low scorers tend to be disorganized, undependable, negligent.
- Extraversion (E) – High scorers tend to be sociable, friendly, fun loving, talkative; Low scorers tend to be introverted, reserved, inhibited, quiet.

- Agreeableness (A) – High scorers tend to be good natured, sympathetic, forgiving, courteous; Low scorers tend to be critical, rude, harsh, callous.
- Neuroticism (N) – High scorers tend to be nervous, high-strung, insecure, worrying; Low scorers tend to be calm, relaxed, secure, hardy.

These “Big Five” indicators were determined and tested extensively throughout the 1980s to validate them as the predominantly accepted categories of personality types. These categories are broad labels of actually sixteen different personality profile traits. Most of this work was done to establish that a reliable taxonomy of meanings of words used to describe people’s behaviors was consistent. The focus was to establish that the traits identified were a complete collection of the terms used in a language, and from this the specific categories and the “Big Five” broad categories were determined.

Thus far all methods used to assess personality profiles depend on the use of descriptive assessment tools where subjects would either describe themselves or are described by others.

Throughout the 1990’s, considerable work was done showing that individual personality traits can be linked back to biological origins. Studies show that specific physical traits have a significant influence on one’s personality. One paper[4] indicates that color blindness and acute hearing loss will significantly influence the development of ones personality particularly Openness, Extraversion, and Neuroticism. Another paper[5] indicates that myopia affects Conscientiousness, Extraversion and Openness. These studies show that there are biological links, which can be measured and may provide a clue to determining personality traits through the analysis of user behavior.

5.2 Current User Modeling Using Personality Profiles

Many user modeling approaches have been attempted and researched. Many of these model user behavior and use past behaviors to predict future ones. Much of this is based on educated guesses on the part of the user model developers regarding that a particular behavior means a particular expected need, causing the interface to adjust itself accordingly. One such example is the frequently used menu options on the menu of Word. Yet, until recently, there has been little work in attempting to develop a user model based on personality profiles, considered to be the fundamental predictors of human behavior. There is certainly no reliable translation map with correlations between specific user behaviors and personality profile traits. Thus there is no way to determine that a particular behavior indicates the existence of a particular trait or quantify it.

5.3 Earlier Similar Studies

Apart from computer-user profiling studies, there does exist a correlative mapping of use-of-language and personality profile traits. One study attempted to extract user personality profiles from a linguistic analysis of text written by participants [8]. This could prove to be a promising method of determining personality-trait user models, since much of what people use computers for is to communicate in written language.

Another attempt closer to the goal of this research was pursued as a side effect study during the testing phase of a software system. User personality profiles were determined for participants intended to test the software system using the Big Five surveys. The data collected during the software test was then used to determine any correlations with personality traits [9]. This study showed some correlations. Unfortunately, even though the results were promising, the data set was simply not statistically conclusive, due to a small number of participants. Other qualitative studies were performed attempting to correlate user behavior to personality profiles. [10,11,12] None of these studies resulted in a diagnostic tool or attempted to measure specific user behavior related to visual or cognitive processes.

No research has been identified which attempts to find a link between the specific user activity metrics measured in this study and personality profiles, specifically attempting to determine an alternative diagnostic tool.

6 METHODOLOGY

6.1 Overview

The basic hypothesis of this study is that personality profiles are linked to measurable physical traits which modify their behaviors. Thus, by measuring a broad collection of user skills and behaviors, correlations should be found between these measurements and personality profile scores.

To show this, measurements were taken on participants in three broad categories: visual perceptive skills, information analysis in decision-making, and information documentation methods used in organizing a defined event.

Forty-seven individuals participated in a personality profile survey, and performed three tasks using computer interfaces. These were an icon search test, a decision making task, and an organizational task.

In the first task, an individual's perceptive abilities were tested by measuring their performance on an icon search test. The task was chosen since vision is clearly a primary method used by individuals to gather information about their environment. The idea is that a perceptive skills test will be able to measure particular unconscious cognitive or visual resources that an individual has that might correlate to different personality profile traits. Specifically the expectation is that those with an extreme Neuroticism score will show a divergence from an average on a test, which not only requires acute attention, but also includes a distractive component.

The second task measures how a participant interacts with an interface to process information they need to make a decision. This test specifically measures the quantity of information a user considers necessary to make a decision, and the amount of time a participant requires to examine information, before making a decision.

In the final task, participants interact with an interface to organize information in a project management system. This test measures the amount of information a user perceives is necessary to document a planned event and to some degree the methods used in organizing the information.

Although some results are expected, there are no hypothesized results except that correlations will exist, making this entirely a qualitative research study. The goal initially is to discover any correlations that are statistically relevant.

6.2 Personality Assessment Tool

The Big Five personality assessment tool used is one that is publicly available online at: <http://www.outofservice.com/bigfive/>

UC Berkeley psychologist Oliver P. John, PhD developed this assessment tool. It is similar to other tools available and provides a simple method of obtaining a personality profile on the participants in this study.

Using this tool yields percentile rankings of subjects compared to previous individuals who have taken the same test in the past. Using percentile scores allows the results to be easily comparable since they are not raw scores but scores that are normalized against a large collection of participants. However, there is the possibility

that over time the percentiles would change, as the base would be modified, meaning that the percentiles change over time. In the case of the particular set of individuals in this study, all participants were tested within a short three-week time frame, against an established base of many thousands of participants that had previously used this too.

Thus, it is assumed that the basis for the percentile scores did not dramatically change during the course of the testing of the participants in this study.

6.3 Icon Search Task

Each subject was asked to review a series of screens on which an icon would appear at the top of the screen and below it, arranged in rows and columns, would appear a collection of icons. The participant was instructed to find the icon presented at the top of the screen amongst the collection of icons and click on the matching icon as fast as possible. The interface would then present a new screen with a different icon to search for and a different collection of icons in which it was to be found.

The entire test consisted of one hundred screens. Each screen would not only present a different collection of icons but also odd numbered screens would contain only static icons and even numbered screens would include a mixture of animated and static icons. The number of icons would increase by one row of twelve more icons every tenth screen. Thus the first screen would have a single row of twelve static icons below a single target icon presented at the top, the second screen would have twelve icons with approximately half of them animated. The eleventh screen would have twenty-four static icons to search through and so forth until the last screen would contain one hundred and twenty icons. Fig. 1 illustrates a typical screen with eighty four icons.

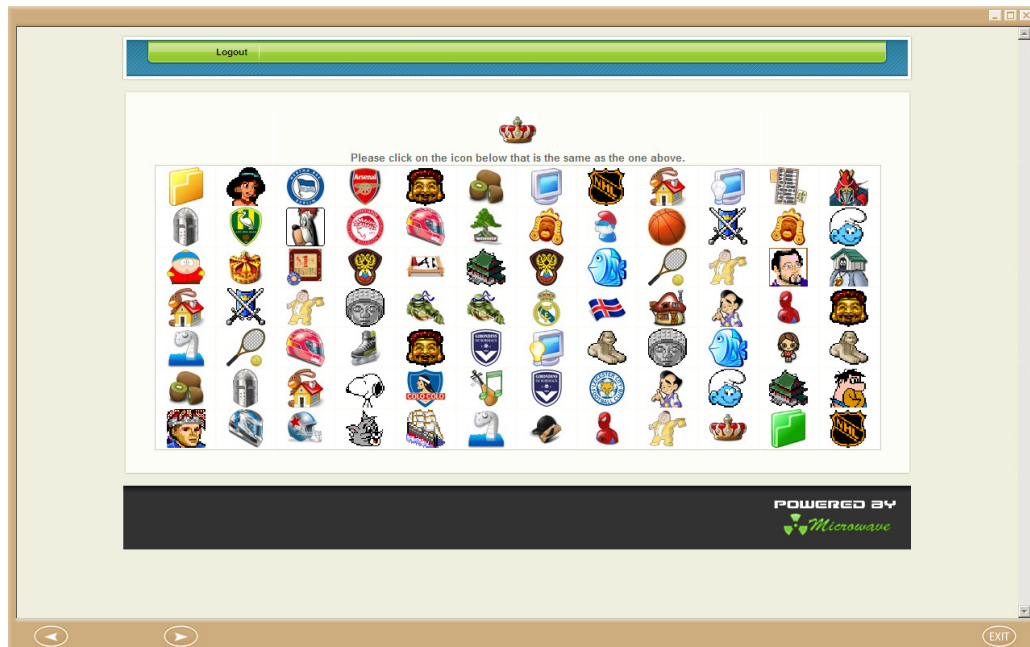


Fig. 1. Example Icon Search Screen

The time required for the user to find the target icon and click on it was measured for each screen.

6.4 Decision-making Task

This experiment was designed based on a classic Turing Test where individuals were asked to determine if a set of answers to a set of questions were answered by a human or a computer. The purpose of this task was not to replicate the results of a Turing Test, or to test how good a particular AI chat program performed during a Turing Test. The purpose of this test was to attempt to quantify the amount of information that a user felt they needed to consider before they could make a decision.

In this task the user was presented with a screen of questions that were asked of the artificial intelligent (AI) chat program named Alice. The users were not allowed to

immediately see the answers that were given by the chat program, but were instructed that if they wished to see the answers they needed only to click on a question, and the answer that was given by the respondent to the question would be shown at the top of the screen. Buttons were provided at the bottom of the screen allowing the user to make a choice. Once the user made a choice the experiment ended.

The interface for this experiment is shown in Fig. 2.

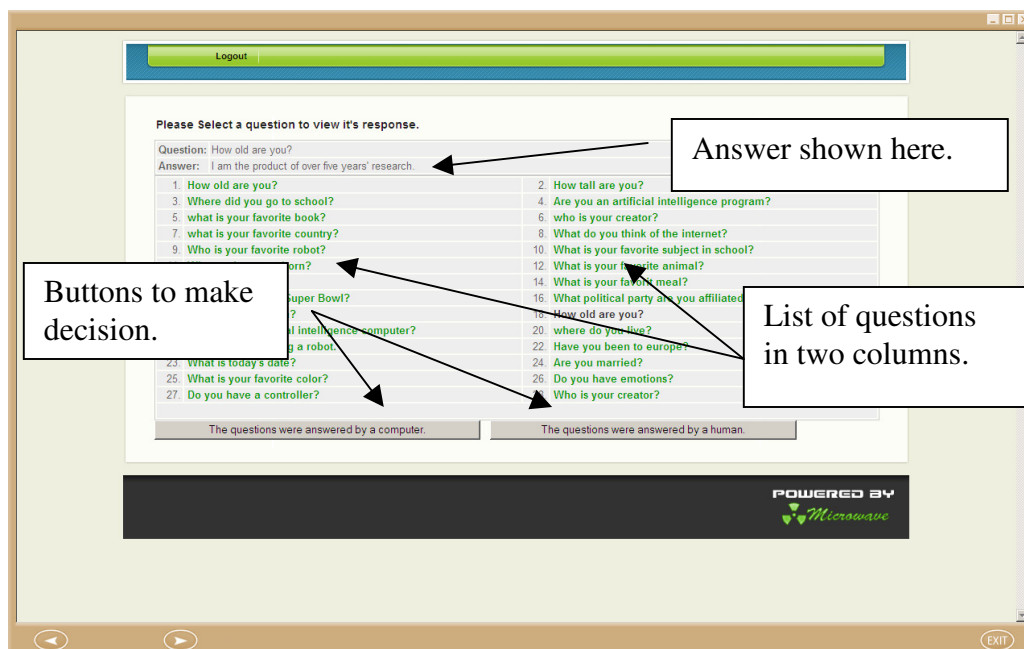


Fig. 2. Decision-Making Interface

Ultimately they were to decide if the answers given to the questions were given by an AI program or a person pretending to be an AI program.

The analytical measurements explored from the data obtained from this test were the following metrics:

- 1 Total number of questions examined.
- 2 Total time to examine the questions.
- 3 The average time spent examining a given answer.

6.5 Organizational Task

In this task, participants were instructed in the use of a project management/tracking tool named Project Tracker. They were then asked to perform a task using the tool. This particular project management tool allows users to create Projects and Jobs within those Projects. Both Projects and Jobs within the tool are defined as having a Name and a Description. The interface presents a menu of various functions, one of which is the function to create Projects. Names of Projects are shown in bold with a link to create an associated Job. Names of Jobs are shown below their associated Projects, alongside other associated information. These are then presented on a screen in a basic two-level outline form, as illustrated in Fig. 3.

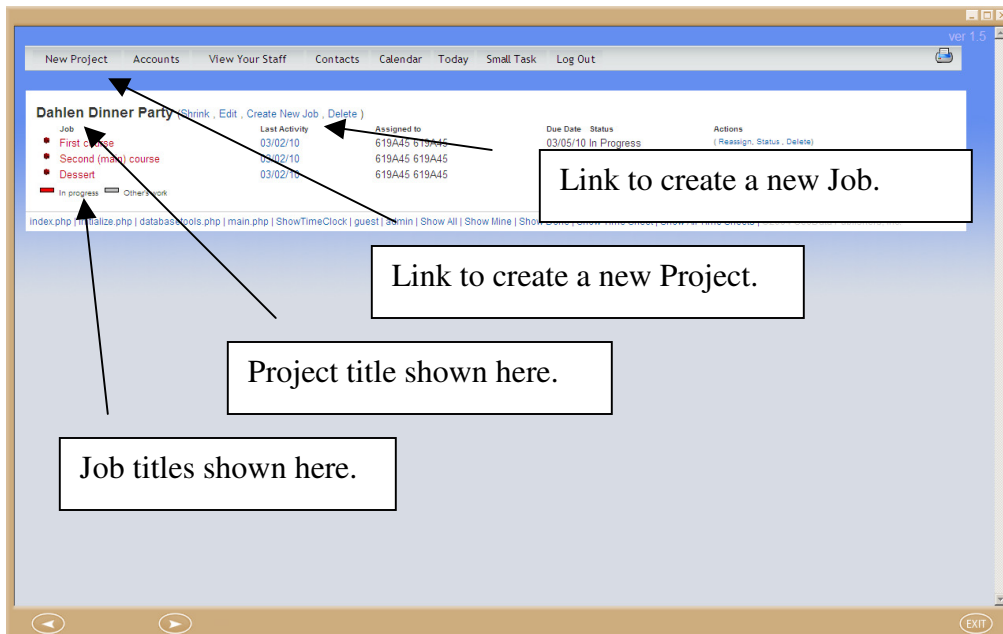


Fig. 3. Project Tracker Main Screen

Creating a Project was accomplished by filling out a form shown in Fig. 4. below.

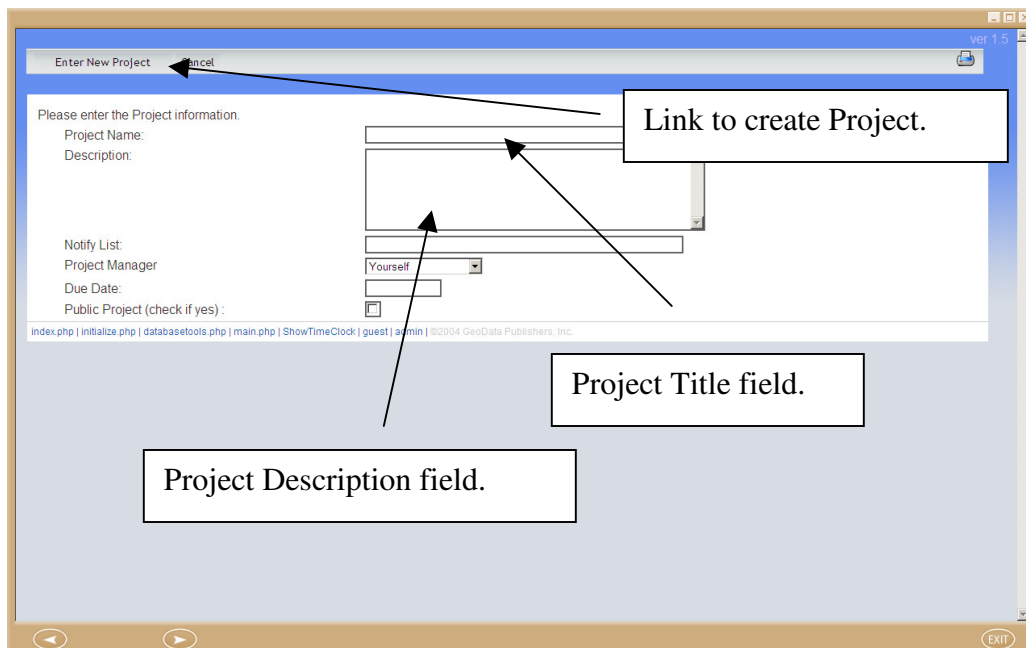


Fig. 4. Project Tracker Project Form

Creating a Job was accomplished by filling out the form shown in Fig. 5.

The screenshot shows a web browser window titled "Enter New Job" with a "Cancel" button. The form contains the following fields and controls:

- Job Name: A text input field.
- Description: A large text area.
- Assigned To: A dropdown menu with "Yourself" selected.
- Due Date (mm/dd/yy): A date input field.
- Current Status: A dropdown menu.
- First Step: A text input field.
- First Step Date (mm/dd/yy): A date input field.

Callout boxes with arrows point to the following elements:

- "Link to create Job." points to the "Enter New Job" title bar.
- "Job Name field." points to the "Job Name" input field.
- "Job Description field." points to the "Description" text area.

At the bottom of the browser window, there is a navigation bar with back, forward, and "EXIT" buttons. The footer text reads: "index.php | initialize.php | databasetools.php | main.php | ShowTimeClock | guest admin | ©2004 GeoData Publishers, Inc."

Fig. 5. Project Tracker Job Form

Once instructed in the use of the tool, the participants were asked to use the tool to plan a dinner party for six people. They were instructed that they had complete freedom to plan the party however they liked, but that their plans must include a main course and a dessert. Additionally, they were instructed to limit their use of the tool to the creation of Jobs and Projects only, and to ignore the other interface elements of the software on the main screen, ignore the Notify List field in the Projects form, ignore all elements except the Name and the Description fields on the Jobs form.

During the instruction in the use of the tool, questions related to the use of the tool were answered. If participants asked any questions regarding how they should go about accomplishing the task, they were instructed that, that was “entirely their decision.” Answers to such questions were avoided since any attempt to answer those questions could influence the results measured.

The entire plan created by each participant was saved from which the following metrics were derived:

- 1 Total number of Jobs.
- 2 Total number of Projects.
- 3 Total number of Jobs and Projects.
- 4 Total number of words used for a Name or Title field.
- 5 Total number of words used for a Description field.
- 6 Average number of words used for a Name or Title field.
- 7 Average number of words used for a Description field.
- 8 Total number of words used by a participant

6.6 Testing Environment and Equipment

The participants in this study were volunteers predominately from a sorority and a fraternity at Texas A&M University.

In order to avoid bias of results related to the user’s environment, two steps were taken. As much care as possible was taken to insure that all participants were tested in similar physical environments. It is known in particular that individuals taking the icon search task are subject to distraction and therefore distraction was limited as much as

possible, except that which was a deliberate part of the task. This was accomplished by asking participants to complete the task in a familiar quiet environment. In this study, the tasks were administered in the libraries of the fraternity and sorority houses. Another step to avoid bias too into account the age of the participants. Longitudinal studies indicate that some personality traits change as a person ages.[4] However, the changes are noted over a lifetime and all participants in this study were of college ages ranging from nineteen to twenty four, a relatively narrow range.

All participants were administered the tasks on the same computer hardware. The hardware was a Compaq Presario V6000 laptop, using an external mouse. Participants were instructed to use the mouse instead of the laptop's touchpad for the icon search task. This insured to some degree that the hardware was not a factor in differences in the results.

7 STATISTICAL ANALYSIS

7.1 Method

The data for all studies was analyzed using SAS, a statistical analysis tool. The analysis of variance (ANOVA) method in SAS software's proc GLM procedure was used to analyze the Icon Search data. This dataset was significantly more complex with the existence of animation, and the varying number of icons, considered independent tests. The other two datasets were analyzed with a simple correlation also using SAS. Any observed correlations were illustrated using averages of measurements of selected populations. The populations consisted of those above and below the median values of a particular personality trait, and then those in the upper and lower twenty-five percentile rankings. These populations were selected exclusively; meaning individuals that were equal to any median or quartile boundary value were not considered as a member of either population.

7.2 Limitations of the Data

The data was derived from a select group of participants who share the common trait of being sorority or fraternity members. Thus the results cannot necessarily be extended to the general population.

For the Decision Making Task, and the Project Management Task, the number of data points measured will pose a problem with regards to limiting the number of participants, which could be grouped into quartiles. Specifically with the Decision Making experiment, the scarcity of data was exasperated by the discovery of an

experimental design flaw that made the data obtained on the first twenty-one participants unusable. Only twenty-six measurements were obtained from this particular test. In addition, the twenty-six participants for whom valid data was obtained were overwhelmingly female, since the order of sampling was to sample members of the fraternity house first, and then sample members of the sorority house. Thus any conclusions drawn from the data may be influenced by a possible gender bias.

8 RESULTS

8.1 Results of the Icon Search Task

The Icon Search data presented the largest dataset obtained during the study. Each participant was asked to find one target icons on each of one hundred different screens. With forty five participants this gave 4500 different raw measurements. Thus to reduce the total and to average out considerable variability, time each participant used to locate an icon was averaged across screens that varied by the number of icons and whether or not there was animation defined. This resulted in twenty measurements for each individual or 900 samples total.

The data indicated that the presence of animated icons did influence the time that the users took to find an icon, generally showing that the existence of animated icons hampered participants from finding the target icon when the number of icons was low (≤ 60), but enhanced the ability to find icons when the number of icons was high (≥ 72). This agreed with other studies on icon searches where a group difference aided in finding icons.[13] However, there was no evidence that animation coupled with a particular personality profile trait aided or hindered disproportionately an individual's ability to find an icon. The results of the times for both animated and static screens are shown in Fig. 6.

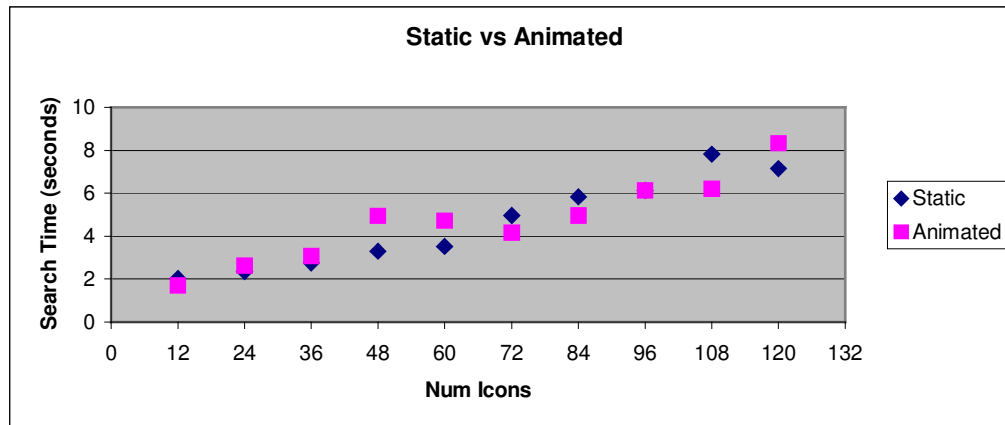


Fig. 6. Search Times for Static vs. Animated Screens

The ANOVA analysis modeled Time against each of the personality profiles as well as the influence of the presence of animated icons. The source code and detailed results are presented in Appendix A. Table 1 shows the final results of the ANOVA analysis using a simple model of Time as a dependent variable to the various personality profile percentiles. The p-value of 0.0103 from the analysis indicates that Conscientiousness (C) has a statistically significant influence on the icon search time, and the negative value on the Estimate for C, shows that a higher C value will yield a lower search time. In addition, a slight trend can be shown where a p value of 0.0944 for Agreeableness (A) indicates a slight statistically significant influence on search times, indicating a higher A score will yield a lower search time.

Table 1
Results of ANOVA Analysis

Parameter		Estimate		Standard Error	t value	Pr > t
O		0.001406981		0.00284860	0.49	0.6215
C		-0.008952927		0.00348304	-2.57	0.0103
E		0.003539169		0.00312065	1.13	0.2571
A		-0.005689763		0.00339815	-1.67	0.0944
N		-0.003109178		0.00436861	-0.71	0.4768
Animation	0	7.980774532	B	0.49484100	16.13	<.0001
Animation	1	9.149023998	B	0.49484100	18.49	<.0001
Icons	12	-6.595602449	B	0.47317508	-13.94	<.0001

To better illustrate these results, individual search times for participants with C and A values above and below the median, as well as those in the upper and lower quartiles, were averaged and compared.

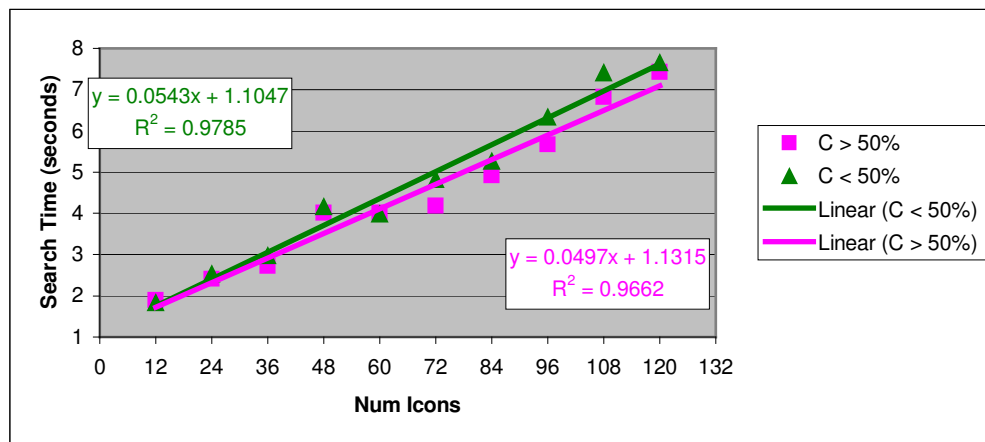


Fig. 7. Comparisons of Upper and Lower Conscientiousness Populations

This shows that populations of individuals with Conscientiousness scores above the median were able to find icons on average faster than those below the median as illustrated in Fig. 7.

Fig. 8. shows a comparison of populations comprising the upper and lower twenty-five percentiles. This comparison illustrates the same results and the separation is magnified.

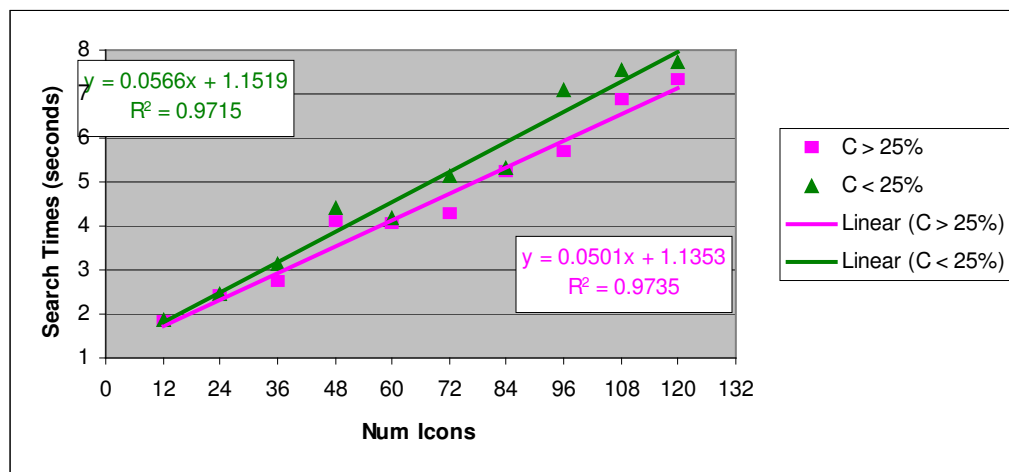


Fig. 8. Comparisons of Upper Quartile and Lower Quartile Conscientiousness Populations

A similar correlation was determined for populations of individuals with Agreeableness scores above and below the median value. This is illustrated in Fig. 9 below.

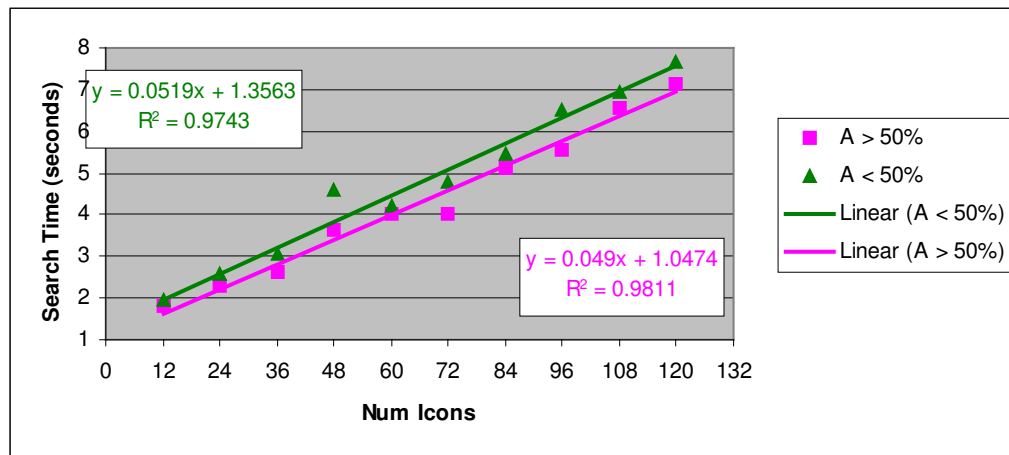


Fig. 9. Comparisons of Upper and Lower Agreeableness Populations

Again, this effect is magnified when the upper and lower twenty-five percentiles populations are compared, as shown in Fig. 10.

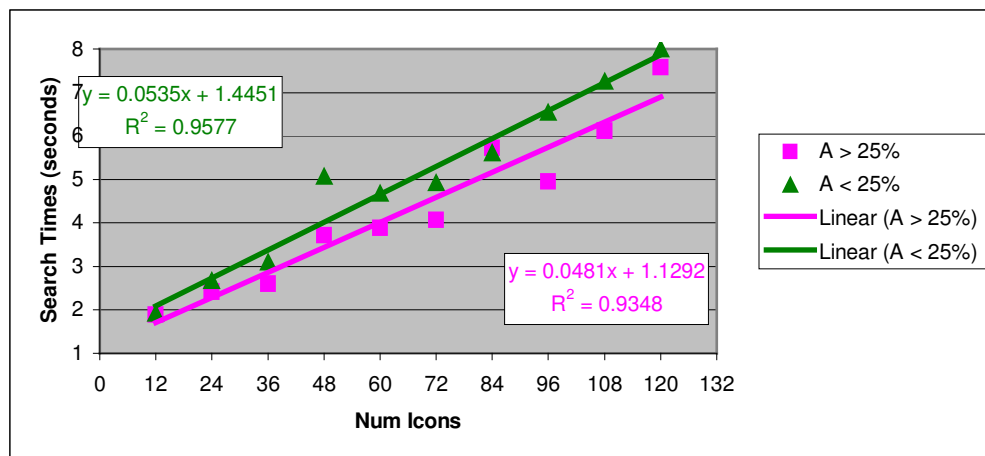


Fig. 10. Comparisons of Upper Quartile and Lower Quartile Agreeableness Populations

8.2 Conclusions of the Icon Search Task

- On average, high Conscientiousness and Agreeableness scores tend to reduce the time required for a given population to find an icon on a screen.

- There was no indication in this study that Openness, Extraversion or Neuroticism have any influence on the time required for an individual to find an icon on a screen.
- The use of animated icons increased the overall time required to find an icon, but it did not correlate with any personality profile trait as a cofactor.

8.3 Results of the Decision-making Task

The data for this test was considerably less complex in that the personality ranks could be directly compared to the measured results without averaging. To compare the results, Pearson Correlation Coefficients were calculated to determine if there were any direct correlations in the data and are shown in the Table 2. Linear fits were then used to illustrate these results.

Table 2

Pearson Correlation Coefficients, N=26, Prob > |r| under HO: Rho=0

	O	C	E	A	N
NumQ	-0.03801 0.8537	0.29380 0.1452	-0.07465 0.7170	-0.24523 0.2274	0.09077 .06592
Total Time	0.10936 0.5949	-0.30821 0.1256	-0.48074 0.0129	0.13651 0.5061	-0.09418 0.6472
AverageTime	0.20539 0.3141	-0.47322 0.0146	-0.23014 0.2580	0.11028 0.5917	0.11135 0.5881

The correlation coefficient $P < 0.05$ indicates there should exist a correlation between Conscientiousness and Average Time spent reviewing a question, and also between Extraversion and the Total Time spent participating in the test.

Fig. 11 illustrates these findings providing a scatter plot of the two parameters of Average Time vs. Conscientiousness and show that there is a linear fit of the data with an R^2 value of 0.2239.

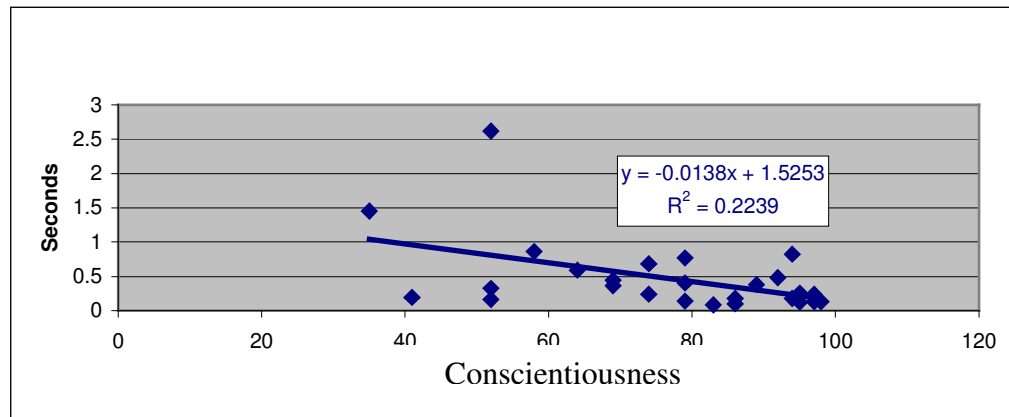


Fig. 11. Conscientiousness vs. Average Time Reviewing an Answer.

A similar relationship is illustrated in Fig. 12 as a scatter plot of the data showing Total Time reviewing questions against Extraversion scores. This yields a linear relationship with an R^2 value of 0.2311.

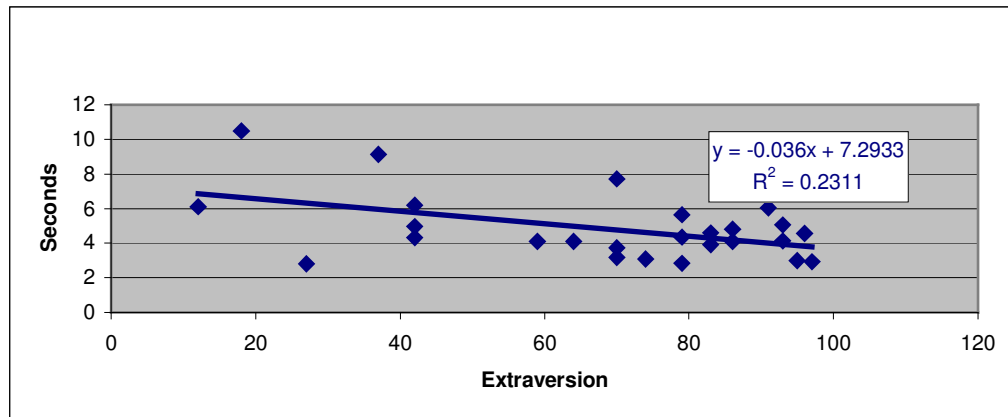


Fig. 12. Extraversion vs. Total Time Reviewing Answers to Questions

Furthermore, it would not make sense that the Average Time spent reviewing questions would be smaller, without one of the two parameters that are used to calculate the Average Time correlating to Conscientiousness. Fig. 13 shows that a relationship does seem to exist. However, the fit of the line is influenced greatly by the two data points with low C values and high number of questions reviewed. With these removed, the linear fit is much improved.

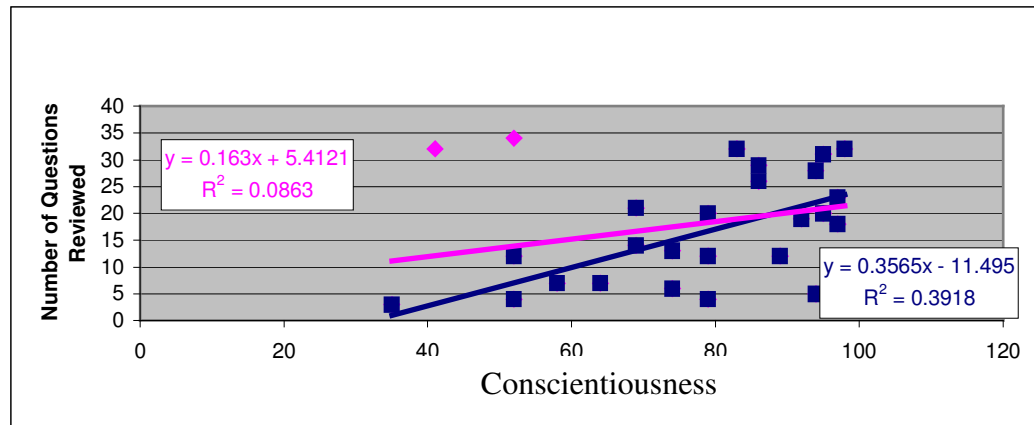


Fig. 13. Conscientiousness vs. Number of Questions Reviewed

8.4 Conclusions of the Decision-making Task

- The data shows a correlation between Conscientiousness and both the Number of Questions that a participant reviewed, as well as a correlation with the Average Time spent reviewing answers to questions.
- In addition, the data shows a good correlation between the Total Times spent reviewing the data and participants Extraversion scores.

8.5 Results of the Organizational Task

In reviewing the data gathered from the Organizational Tasks, the same method was used as that used for the Decision-Making Task. Pearson Correlation Coefficients were calculated on the dataset and these are shown in Appendix C. Unfortunately there appeared to be no correlations, even weak ones, between the parameters examined and any of the personality profile characteristics.

9 CONCLUSIONS

The results of the three tests indicate that personality profiles are related to the way in which people interact with computers. However, results vary widely from individual to individual. This study would seem to indicate that none of the tests presented here could be used as a proxy measure of a user's personality profile.

The data indicates that Conscientiousness was related to how quickly an individual could find an icon. It was also shown that a person with a high Conscientiousness score spent less time reading the answer to a question. These results, combined, hint at a relationship between Conscientiousness and visual perceptive skills. Further research may yield a specific test that measures visual perceptive skills more closely and determine if such skills correlate strongly with Conscientiousness.

Yet the cause of these results is not entirely clear. The lower search times, in both the time a participant spent finding an icon, as well as the time spent reading the answers to questions, could indicate that an individual with high Conscientiousness had more acute visual abilities, allowing them to not only find the icon but to read faster. However, the same result could be achieved if they simply made decisions faster. Tolerance to fatigue could have played a role in the differences in search times since the icon search task had the participants review a very large number of screens.

Although none of results rule out the potential that these tests will yield some idea of an individual's personality, the variability indicates that personality profiles influence individual user's behavior less specifically than hypothesized. Future studies can be

designed to test for these influences to determine more clearly what physical or cognitive abilities can be measured to provide a proxy measurement for personality profiles.

It should be noted that personality profiles tests are a qualitative descriptive measurement. Their lack of accuracy is the very problem attempting to be addressed in this study. The statistical variability shown here may be a result of the inaccuracy of the current methods used to measure personality profiles, not in the inaccuracies of the quantitative measurements of these tests. In addition to other tests mentioned above, further research would need to be conducted with much larger trials to determine if the suggested correlations in this work actually exist to a high enough degree of accuracy to be used as proxy tools.

REFERENCES

- [1] Allport GW. The functional autonomy of motives. *American Journal of Psychology* 1940;50:141-156.
- [2] Srivastava S, John OP, Gosling D. Development of personality in early and middle adulthood: Set like plaster or persistent change. *Journal of Personality and Social Psychology* 2003;84:1041-1053.
- [3] Robins RW, Fraley RC, Roberts BW, Trzesniewski KH. A longitudinal study of personality change in young adulthood. *Journal of Personality* 2001;69(4):617-640.
- [4] Coren S, Harland RE. Personality correlates of variations in visual and auditory abilities. *Personality and Individual Differences* 1995;18(1):15-25.
- [5] Lauriola M. Psychological correlates of eye refractive errors, *Personality and Individual Differences* 1997;23(5):917-920.
- [6] Jung CG. *Psychological Types (Collected Works of C.G. Jung)*, vol.6. Princeton, New Jersey: Princeton University Press; 1971.
- [7] John OP, Srivastava S. The Big Five Trait Taxonomy; History, Measurement, and Theoretical Perspective. In: *Handbook of Personality: Theory and Research*. New York: Guilford Press; 1999. p. 102-138.
- [8] Mairesse F, Walker M. Words mark the nerds: computational models of personality recognition through language. In: *Proceedings of the 28th annual conference of the cognitive science society*. 2006. p. 543-548.
- [9] Fine N, Brinkman WP. Towards extracting personality trait data from interaction behavior. In: *Proceedings of the HCI 2006 workshop on computer-assisted recording, pre-processing and analysis of user interaction data*. 2006. p. 75-92.
- [10] Moran TP. An applied psychology of the user. *ACM Computing Surveys* 1981;13(1):1-11.
- [11] Ziola I, Pianesi F, Zancanaro M, Goren-Bar D. Dimensions of adaptivity in mobile systems: personality and people's attitudes. In: *Proceedings of the 10th international conference on intelligent user interfaces*. 2005. p. 223-230.

- [12] Lisetti CL, Brown S, Alvarez K, Marpaung A. A social informatics approach to human-robot interaction with an office service robot. In: IEEE transactions on systems, man and cybernetics – special issue on human-robot interaction 2004;34(2):195-209.
- [13] Niemeia M, Saarinen J. Visual search for grouped versus ungrouped icons in a computer interface. Human Factors 2000;42(4):630-635.

APPENDIX A

Icon Search Results

SAS program

PROC GLM;

CLASS Animation Icons;

MODEL Time = O C E A N Animation Icons / noint solution;

RUN;

Table A.1

Results of SAS Program.

The SAS System The GLM Procedure

Number of Observations Read 900

Number of Observations Used 900

Dependent Variable: Time

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model		25 22661.59188	906.46368	179.94	<.0001
Error		875 4407.92606	5.03763		
Uncorrected Total		900	27069.51794		
R-Square	Coeff Var	Root MSE	Time Mean		
0.429374	48.41192	2.244466	4.636186		

Source	DF	Type I SS	Mean Square	F Value	Pr > F
O	1	11967.79346	11967.79346	2375.68	<.0001
C	1	5186.86924	5186.86924	1029.62	<.0001
E	1	777.25243	777.25243	154.29	<.0001
A	1	151.38544	151.38544	30.05	<.0001
N	1	240.03535	240.03535	47.65	<.0001
Animation	2	1092.98348	546.49174	108.48	<.0001
Icons	9	3028.84297	336.53811	66.8	<.0001
Animation*Icons	9	216.4295	24.04772	4.77	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
---------------	-----------	--------------------	--------------------	----------------	------------------

O	1	1.228968	1.228968	0.24	0.6215
C	1	33.284216	33.284216	6.61	0.0103
E	1	6.479459	6.479459	1.29	0.2571
A	1	14.123049	14.123049	2.8	0.0944
N	1	2.551703	2.551703	0.51	0.4768
Animation	1	2.192296	2.192296	0.44	0.5096
Icons	9	3028.842969	336.538108	66.8	<.0001
Animation*Icons	9	216.429501	24.047722	4.77	<.0001

Parameter		Estimate	Standard Error	t value	Pr > t
O		0.001406981	0.0028486	0.49	0.6215
C		-0.008952927	0.00348304	-2.57	0.0103
E		0.003539169	0.00312065	1.13	0.2571
A		-0.005689763	0.00339815	-1.67	0.0944
N		-0.003109178	0.00436861	-0.71	0.4768
Animation	0	7.980774532 B	0.494841	16.13	<.0001
Animation	1	9.149023998 B	0.494841	18.49	<.0001

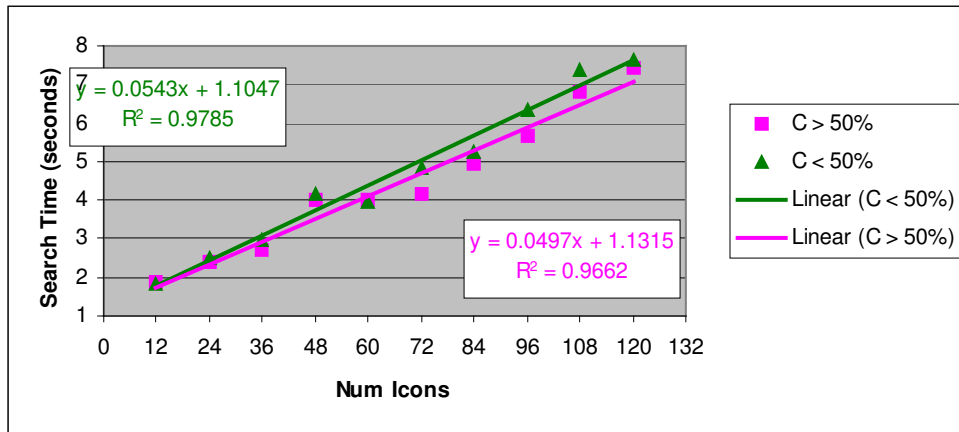


Fig. A.1 Conscientiousness - Comparison of Upper and Lower Groups

Fig. A.2 shows a comparison of populations comprising the upper and lower twenty-five percentiles. This comparison manifests the same results and, as would be expected, the trend is magnified.

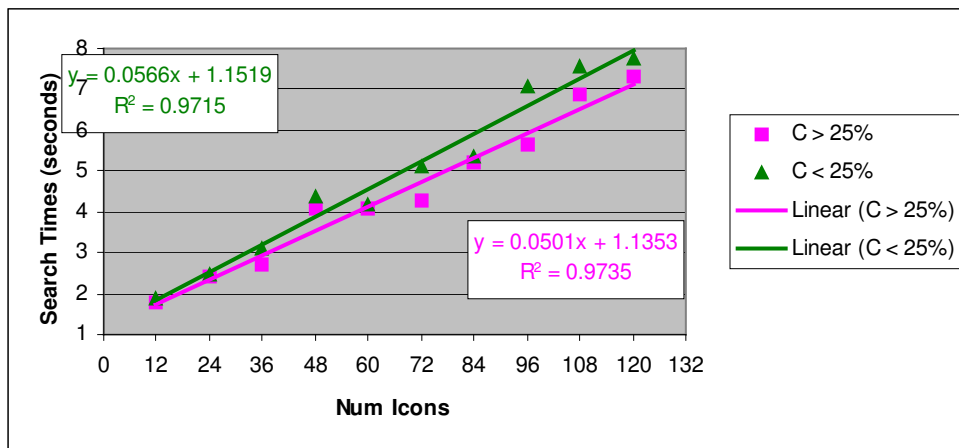


Fig. A.2 Conscientiousness - Comparison of Upper and Lower Quartiles

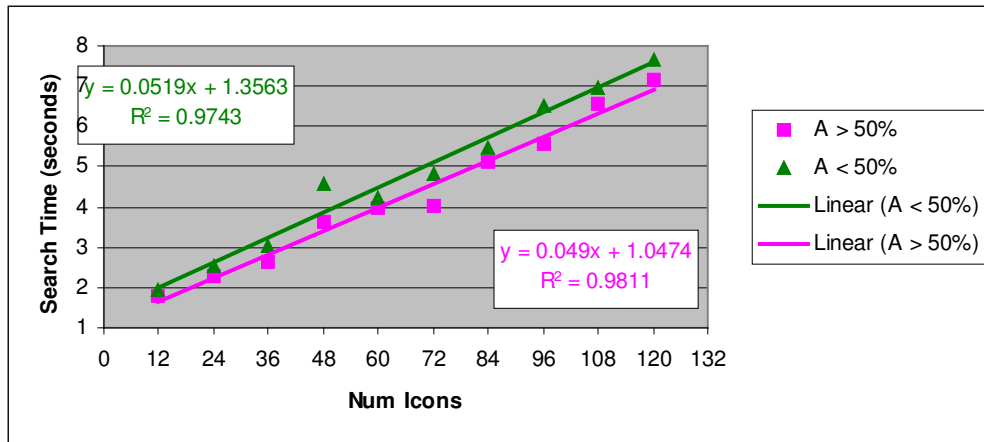


Fig. A.3 Agreeableness - Comparison of Upper and Lower Quartiles

Again, this effect is magnified when the upper and lower twenty-five percentiles are compared, as shown in Fig. A.4 below.

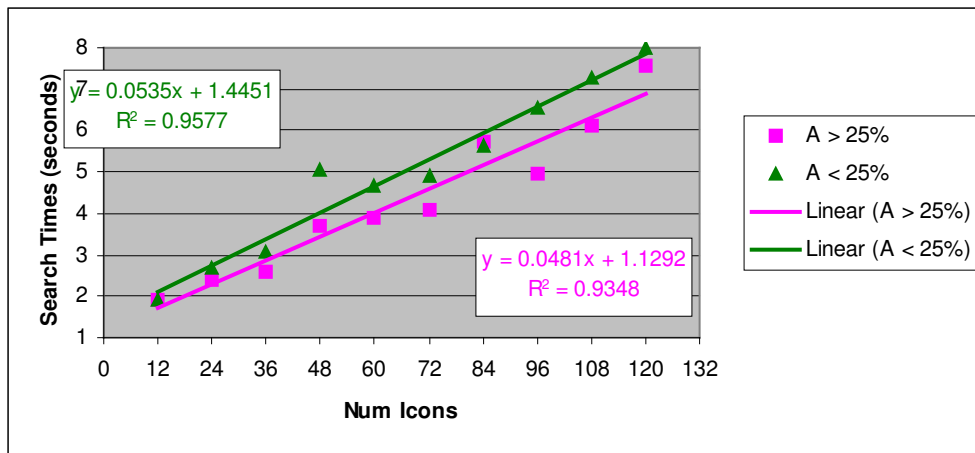


Fig. A.4 Agreeableness - Comparison of Upper and Lower Quartiles

APPENDIX B

Statistical Analysis of Decision Making Task

Table B.1

Pearson Correlation Coefficients, N=26, Prob > |r| under HO: Rho=0

	O	C	E	A	N
NumQ	-0.03801 0.8537	0.29380 0.1452	-0.07465 0.7170	-0.24523 0.2274	0.09077 .06592
Total Time	0.10936 0.5949	-0.30821 0.1256	-0.48074 0.0129	0.13651 0.5061	-0.09418 0.6472
Average Time	0.20539 0.3141	-0.47322 0.0146	-0.23014 0.2580	0.11028 0.5917	0.11135 0.5881

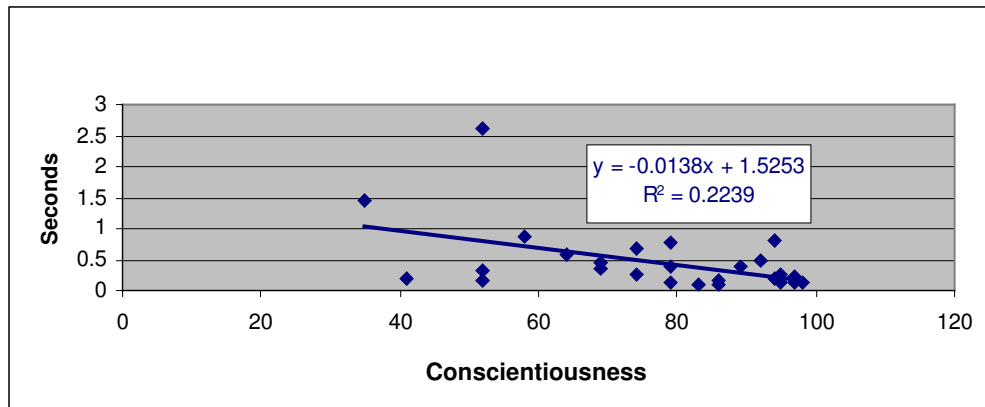


Fig. B.1 Conscientiousness vs. Average Time Reviewing an Answer

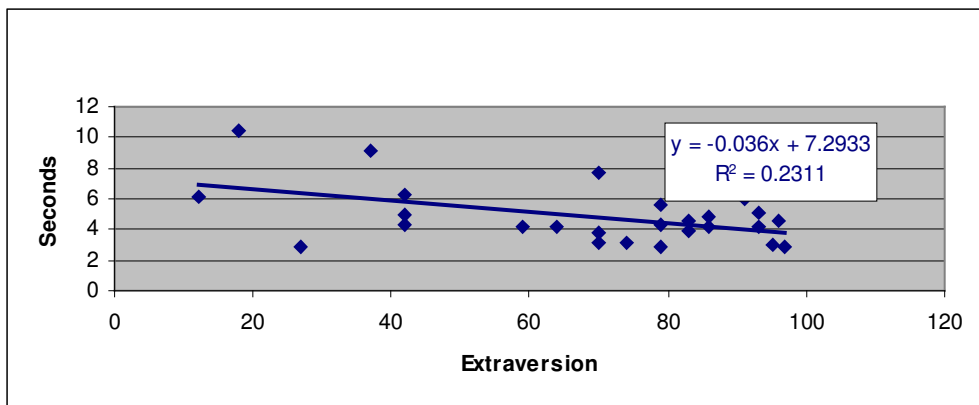


Fig. B.2 Extraversion vs. Total Time Reviewing Questions

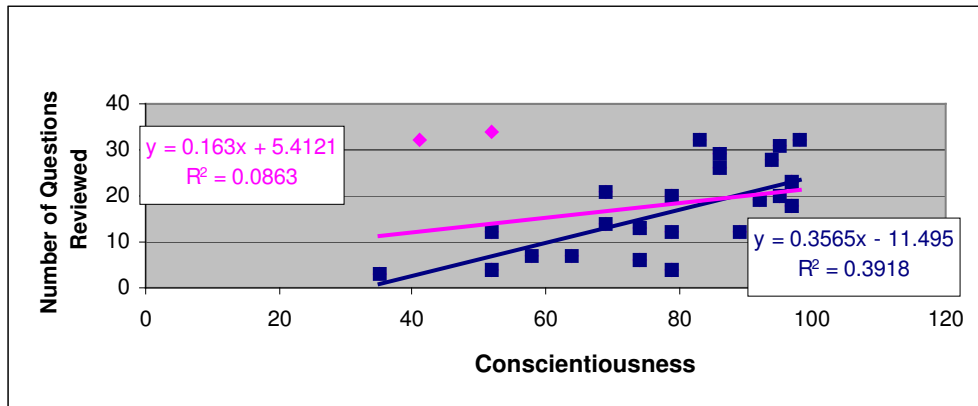


Fig. B.3 Conscientiousness vs. Number of Questions Reviewed

APPENDIX C

Analysis of Organizational Task

Table C.1

Pearson Correlation Coefficients, N=39, Prob > |r| under HO:Rho=0

	O	C	E	A	N
numjobs	0.0390	-0.1185	-0.4754	0.0086	0.0906
	0.8139	0.4724	0.0022	0.9585	0.5832
numprojects	0.1655	-0.1247	-0.1748	0.0783	0.0987
	0.3140	0.4495	0.2873	0.6358	0.5500
NumNobsandProjects	0.1564	-0.1319	-0.2335	0.0724	0.1039
	0.3417	0.4236	0.1525	0.6613	0.5292
TitleWords	0.0331	-0.0538	-0.0731	0.0764	0.1678
	0.8414	0.7448	0.6582	0.6439	0.3071
DescriptiveWords	0.2559	-0.2164	-0.0267	-0.0637	0.0570
	0.1158	0.1857	0.8718	0.6999	0.7305
AverageTitle	-0.2673	-0.0376	0.1132	-0.1976	0.0122
	0.1000	0.8203	0.4928	0.2280	0.9414
AverageDescription	0.0634	-0.1889	0.1841	-0.2405	-0.0832
	0.7014	0.2496	0.2619	0.1403	0.6146
Total_Words	0.2552	-0.2184	-0.0338	-0.0548	0.0733
	0.1169	0.1816	0.8383	0.7402	0.6576

No correlations were determined. There would possibly be a correlation between Extraversion and the number of Jobs, but when looking at the data there were only five individuals who used more than one job. This seemed to be more of a misunderstanding of the outlining capability of the tool and not statistically relevant.

APPENDIX D

Raw Personality Profile Measurements.

Idcode's	O	C	E	A	N
16183E	53	69	42	79	43
1651CA	7	98	59	97	1
1a39de	1	79	27	27	76
1C5882	65	95	70	83	22
1E1E75	70	74	70	97	37
2018DB	12	74	70	74	27
292EDE	16	92	37	96	27
2d0dbc	76	97	42	96	27
2da18e	20	74	70	63	18
2EBCCC	65	83	79	87	37
32AF92	7	89	83	22	18
339A4C-B	2	94	64	94	5
33E973	53	46	53	93	43
36DADB	59	6	64	83	22
36DEAB	20	64	79	83	22
3824D3	4	95	93	79	14
3B45E9	35	46	18	44	22
3f0272	70	10	59	83	9
434EFD	59	89	27	83	66
48b200	2	64	93	83	27
49D9A4	20	94	42	93	43
4a64E0	90	79	48	93	18
4C51ED	4	64	86	94	5
50FA05	12	79	83	87	4
5abo3f	41	69	70	74	18
5BFC20	84	74	86	93	43
5DD4332	12	30	93	6	14
5E7C0B	35	86	97	38	43
5EE7CF	30	74	42	74	9
5FF4BE	35	97	95	79	9
619A45	30	86	83	69	55
64C7C1	88	79	74	90	32
6A7527	84	52	18	74	32
6C8489	1	35	79	74	27
6da768	53	52	79	22	66
77E07B	2	30	31	22	3
7aaa97	2	52	83	63	66

7Ac26E	10	79	86	96	18
7bb4aa	16	58	91	83	32
7d2c6a	76	89	96	87	43
7E2A17	76	74	97	94	27
80758e	12	41	12	93	27
81086B	70	35	22	38	55
83f325	47	83	53	4	80
F7B78	41	52	37	87	5

Table D.1 Personality Profile Measurements Raw Data

APPENDIX E

Raw Icon Search Times

Idcodes	Screen1	Screen2	Screen3	Screen4	Screen5	Screen6	Screen7	Screen8
16183E	2.28378	2.59577	1.53253	1.62617	1.6523	1.80999	1.71251	1.37819
1651CA	2.14609	1.63639	1.54021	1.37647	1.54868	1.33436	1.94062	1.2805
1a39de	2.65333	1.73938	1.78309	1.31592	1.75546	1.30784	2.52561	1.24367
1C5882	2.11441	1.46916	1.65455	1.41299	1.65098	1.36109	1.77695	1.16515
1E1E75	3.58092	1.96052	1.93764	1.6367	1.75766	1.84497	1.74901	1.43075
2018DB	2.46431	1.70064	1.99363	1.81886	1.77467	1.56492	2.22096	1.62501
292EDE	2.80431	1.78776	1.81387	1.85947	2.20805	1.44602	1.36401	1.41174
2d0dbc	2.14603	1.56468	1.60414	1.3482	1.77422	1.62876	1.55811	1.31044
2DA18E	6.94931	2.28702	2.1248	1.74066	2.23341	1.47542	1.81911	1.7114
2EBCCC	2.42711	1.85332	1.53947	1.90363	1.82752	1.46938	1.85529	1.33161
32AF92	2.44432	1.94076	1.57644	2.39669	2.62927	1.59904	1.9908	1.76115
339A4C-B	1.96373	1.40378	1.65174	1.42588	1.90803	1.76622	1.11597	0.924119
33E973	2.98631	1.64343	1.75592	1.3396	1.97588	1.37956	1.39975	1.12418
36DADB	3.69039	1.8243	1.91707	2.03681	2.16466	1.62905	2.07081	1.47285
36DEAB	2.59336	1.7077	2.1901	1.38341	2.54732	1.8134	1.73925	1.54504
3824D3	3.0694	2.36994	1.85338	2.08315	2.33183	1.64952	2.41606	1.4439
3B45E9	2.71074	2.48628	3.09327	3.51235	2.80261	1.97871	1.38238	1.41047
3F0272	2.61976	2.43206	1.87307	1.88386	2.73139	1.72179	3.0336	1.3878
434EFD	2.81433	1.7958	1.62017	1.67988	1.68813	1.60595	1.62832	1.25425
48B200	2.81187	1.81704	1.73333	1.27533	1.74757	1.59752	2.22134	1.33114
49D9A4	2.87427	1.84491	1.70117	1.76867	1.99098	1.34477	2.00497	1.14917
4A64E0	2.3989	1.54262	2.21072	1.59318	2.56323	1.81124	1.48083	1.24907
4C51ED	2.37788	1.70926	1.60675	1.7736	1.91577	1.56344	1.87548	1.26771
50FA05	5.63265	2.08261	1.53878	1.23869	1.57478	1.76498	1.58882	1.33473
5abo3f	3.00267	1.54606	1.29969	1.70393	1.89996	1.47203	1.23381	1.31637
5BFC20	2.32874	1.43222	1.61677	1.93323	1.94739	1.54107	1.42478	1.38113
5DD4332	1.72164	1.72974	1.63176	1.80999	1.57565	1.41202	1.18529	1.37963
5E7C0B	2.22715	1.35	1.37512	1.30711	1.68547	1.25937	1.7678	1.04538
5EE7CF	3.65735	2.09488	1.91581	1.81986	2.44004	1.72803	2.11816	1.6619
5FF4BE	3.90514	2.74635	1.92447	2.10048	2.22489	1.58072	1.60888	1.68653
619A45	2.44149	1.8341	1.95571	1.78812	2.07792	1.73453	1.42871	1.27007
64C7C1	2.08317	1.61082	1.58467	1.58128	1.76891	1.60731	1.23713	1.54967
6a7527	6.19187	1.80977	1.656	1.4917	1.84222	1.51397	1.10885	1.0865
6C8489	2.27718	1.70157	1.66558	1.87594	1.92317	1.53185	2.05765	1.43795
6DA768	2.00003	1.37653	1.41244	1.96308	1.93045	1.53682	2.58834	1.39106
77E07B	2.92524	1.75637	1.77151	1.47347	1.9396	1.65547	1.2839	1.29972
7aaa97	2.16423	1.89269	1.71447	1.16469	2.24451	1.4206	1.79264	1.45858
7Ac26E	5.4868	2.98959	4.32669	3.98114	3.23318	2.28338	1.5792	1.41594
7bb4aa	2.97409	1.74796	1.73437	1.51668	2.30027	1.9765	1.62057	1.35245
7d2c6a	2.53236	1.98698	2.14873	1.69502	2.21926	1.80702	1.34109	1.24951
7E2A17	4.56306	1.5067	1.50107	1.74524	1.8512	1.68114	1.4014	1.26535

80758E	1.86835	1.43085	1.32835	1.23853	1.67883	1.54271	1.41064	1.0088
81086B	4.19211	1.95403	1.89292	1.59403	1.74058	1.5286	1.59046	1.52009
83F325	3.79487	1.97282	1.56321	1.68295	2.29134	1.83305	2.58737	1.55733
F7B78	1.67043	1.22451	1.27664	1.14869	1.50248	1.31478	0.972601	1.07438

Idcodes	Screen9	Screen10	Screen11	Screen12	Screen13	Screen14	Screen15	Screen16
16183E	1.6569	2.37032	2.69701	3.35027	2.15084	4.72129	1.80154	2.41761
1651CA	1.5771	1.49281	1.78718	3.29334	2.08324	1.53136	1.65707	1.9416
1a39de	1.78768	2.52626	1.75541	3.11712	3.84425	1.42875	1.50223	3.08314
1C5882	1.69088	1.64149	1.76129	4.11399	3.06769	3.63813	1.41419	2.12401
1E1E75	1.71323	2.03514	2.14719	4.80607	2.89976	1.99187	1.75454	1.97196
2018DB	1.83516	1.755	1.67694	3.81416	2.19554	3.51768	1.54768	2.14209
292EDE	1.76997	2.29616	2.02857	3.61502	2.69875	4.50333	2.41082	2.13699
2d0dbc	1.44948	1.54245	1.6666	1.88522	1.571	1.63297	1.79492	2.1739
2DA18E	1.72939	1.86352	1.74736	6.40622	2.31599	2.99627	1.70013	2.27245
2EBCCC	1.67374	1.6918	1.57009	2.84833	2.04612	2.50049	1.86422	1.91684
32AF92	1.72887	2.04725	2.25309	5.08373	2.98789	2.40596	1.684	3.12413
339A4C-B	1.54018	1.95291	1.59408	4.15713	2.5247	2.49307	1.89108	3.48128
33E973	1.7355	1.98788	1.414	3.19594	2.22034	1.27292	1.69059	1.40905
36DADB	1.41885	2.03186	2.05717	3.76545	2.12353	4.50873	1.85348	3.64402
36DEAB	1.79338	2.11623	2.32387	3.87627	2.99406	3.64651	2.28472	3.04505
3824D3	1.68393	2.60384	1.82776	2.59816	5.61413	2.4521	1.60239	1.73843
3B45E9	2.00107	1.9286	1.84694	2.66959	5.26377	2.60381	2.28342	1.93946
3F0272	1.80593	1.60391	1.7638	2.51681	3.14007	1.68064	2.08828	11.4549
434EFD	1.53202	2.17022	1.94401	4.84472	2.16463	1.6689	1.93477	2.43708
48B200	1.55914	1.82374	1.86776	2.17405	6.86812	4.32664	1.91676	1.55655
49D9A4	1.63084	1.92105	1.94511	2.18854	2.86216	4.27392	1.4516	1.81803
4A64E0	1.89529	2.46714	1.78907	2.57544	1.9397	2.43169	2.02566	1.4916
4C51ED	1.60681	2.45216	1.36945	4.60114	4.00848	6.32854	2.14829	2.92674
50FA05	1.82116	2.71428	1.65109	7.97755	1.72636	1.24347	1.01171	2.16177
5abo3f	1.35592	2.04423	1.33202	4.13899	3.95878	1.7349	2.06947	1.5828
5BFC20	1.58504	1.7871	1.39702	3.80601	3.37193	2.14598	1.46822	1.71795
5DD4332	1.59165	1.90587	1.65185	3.77931	2.26236	2.67485	2.10046	2.06524
5E7C0B	1.76362	2.22022	1.6876	4.42219	1.39417	1.86064	1.84814	1.55081
5EE7CF	1.96991	2.70414	1.99598	5.01286	3.97087	5.81947	2.03698	2.52535
5FF4BE	1.98899	2.13502	1.91506	4.17946	2.03955	1.7357	1.81969	1.83176
619A45	1.95273	2.01036	2.23252	4.25123	4.54511	3.88328	3.82729	2.34924
64C7C1	1.55955	2.17523	1.53947	4.16023	1.90401	4.72417	1.39552	1.35583
6a7527	1.54022	1.68851	1.16619	2.29286	2.45871	1.47075	1.5766	1.93362
6C8489	1.79764	1.68583	1.70033	2.62441	2.03653	1.72472	2.05222	1.85869
6DA768	1.64853	1.67901	1.83076	6.24962	5.92794	2.42488	1.40951	2.06397
77E07B	1.93612	1.64699	1.84259	4.12268	4.25902	2.67883	2.31855	1.89483
7aaa97	1.80682	1.66864	1.81499	2.90111	2.77779	3.9898	2.57548	1.41168
7Ac26E	1.54734	2.01347	1.86779	4.39086	2.45612	2.55682	4.02814	3.7987
7bb4aa	1.4985	2.01441	1.6769	3.26948	4.88733	3.21339	1.36356	2.15736

7d2c6a	1.5987	1.98337	1.83577	3.00353	2.39564	4.57232	1.89785	2.40623
7E2A17	1.6751	1.77126	1.68173	5.02638	2.23696	4.09225	1.52271	2.40254
80758E	1.7188	1.54286	1.79494	2.22131	2.00929	1.41681	1.36364	1.15555
81086B	1.50871	2.24215	2.19444	2.39666	4.94915	2.21804	1.61929	2.51963
83F325	1.79745	2.81318	2.01959	5.11994	2.75209	4.02669	1.9879	2.17423
F7B78	1.42076	2.34464	1.34889	1.55102	1.4737	1.61126	1.43401	1.44305

Idcodes	Screen17	Screen18	Screen19	Screen20	Screen21	Screen22	Screen23	Screen24
16183E	1.98159	1.73758	2.32543	2.05997	1.73565	2.35646	2.06024	3.44865
1651CA	2.28125	1.506	1.64339	2.38775	1.9895	7.72063	2.5525	2.13105
1a39de	2.93863	2.76671	1.93302	2.14696	2.28483	1.71746	2.42176	2.54543
1C5882	2.23598	1.20394	5.82049	1.83226	1.81037	9.83344	1.93095	2.53724
1E1E75	1.90585	1.70047	1.74472	2.24422	2.43645	2.24514	2.06721	1.85259
2018DB	2.36195	1.85113	1.94445	2.06042	2.39208	1.93881	2.57477	2.12557
292EDE	1.95708	4.89327	1.83588	1.89198	1.90504	3.3317	2.89781	5.56635
2d0dbc	1.53887	1.08078	2.03225	1.74545	2.27546	2.05157	1.87387	3.3802
2DA18E	5.33848	1.63833	2.28653	1.96499	1.78038	7.74533	2.66028	2.67159
2EBCCC	1.78844	1.49475	1.98469	1.90468	1.78834	3.59963	2.22303	1.85935
32AF92	6.81212	1.7224	2.72343	2.15457	3.18034	6.73725	2.86114	2.51306
339A4C-B	1.61859	1.9733	1.70691	1.86961	2.68753	2.39844	1.97385	1.94158
33E973	2.20671	1.60536	2.26759	1.83714	1.77286	4.6441	2.27557	1.75596
36DADB	3.50866	6.95068	1.89617	1.86846	1.99809	2.14314	2.77894	5.75119
36DEAB	3.69089	2.8486	2.79869	2.3273	2.54083	2.50555	1.81982	2.52773
3824D3	2.12645	1.48487	2.27696	1.42896	1.65525	1.97941	1.67956	10.6241
3B45E9	4.56785	1.75773	2.26196	2.7544	2.92405	2.50061	2.35283	3.26713
3F0272	5.00497	1.58099	2.34513	2.14703	1.90127	6.88196	2.47406	1.78159
434EFD	2.10105	1.56211	1.57761	2.26195	2.03333	2.62779	1.91836	4.19809
48B200	2.2125	3.69248	2.21659	1.66157	1.53707	8.94995	1.94437	3.01256
49D9A4	2.14981	1.29624	1.80389	2.3883	1.75015	1.92071	2.36868	2.60722
4A64E0	2.44302	2.32201	2.58645	2.17201	1.6742	2.52473	2.01261	3.56375
4C51ED	2.32414	1.61322	2.25966	1.87148	2.35413	1.78331	2.15137	1.91442
50FA05	1.79421	3.37225	2.75401	1.38829	2.01419	3.82938	2.14248	9.51564
5abo3f	1.62722	1.58102	3.42544	1.54743	2.05359	6.28391	2.82026	2.12858
5BFC20	4.43027	2.19319	3.33833	1.88712	1.81277	9.82718	1.95729	1.76512
5DD4332	1.40279	1.34672	2.44512	1.81906	1.75922	3.85562	2.26753	4.93401
5E7C0B	1.99267	2.79457	2.24475	1.44492	1.64489	2.42138	1.59334	2.43559
5EE7CF	6.52322	4.91665	3.94812	2.09383	3.24416	21.8667	2.3188	2.02301
5FF4BE	1.70583	2.02821	2.24614	1.93234	1.87404	3.50893	2.03833	2.26309
619A45	2.17625	1.43512	1.80399	2.29959	2.13627	2.3243	3.90816	2.54236
64C7C1	2.66045	1.14411	2.39635	2.04426	1.60411	2.3244	1.8205	2.0892
6a7527	1.79472	1.73312	1.37115	1.83351	2.06703	1.78183	1.94596	1.83576
6C8489	1.7665	1.85285	1.89076	2.12885	2.18294	1.88347	2.08334	1.94748
6DA768	2.25158	2.40226	9.61088	2.16862	1.49422	3.42084	2.32892	2.23911
77E07B	2.14156	1.63316	4.11825	2.01096	2.49716	8.8379	2.46977	4.18454
7aaa97	1.6737	2.64392	2.10776	1.88584	1.73189	2.31459	2.3403	1.7287

7Ac26E	1.97428	2.25272	2.21047	2.46443	2.10831	2.18318	1.88301	2.05127
7bb4aa	1.70021	1.55228	1.83429	2.10791	2.1738	1.90035	2.36803	1.82228
7d2c6a	2.49998	1.43285	2.09022	3.97653	1.66839	3.36722	2.64493	5.29335
7E2A17	1.80226	1.40236	2.25854	1.72669	1.82877	2.05181	2.58103	1.6417
80758E	1.37963	1.83979	2.11977	2.44002	1.4002	3.91241	2.23471	2.05295
81086B	1.35123	1.86599	1.9636	1.3883	1.8856	2.47651	3.42017	4.17703
83F325	2.53268	1.94683	1.98038	2.38483	2.54848	2.43137	2.04902	2.14318
F7B78	1.30737	1.10167	7.60972	1.61577	1.74766	5.6304	2.1284	1.52618

Idcodes	Screen25	Screen26	Screen27	Screen28	Screen29	Screen30	Screen31	Screen32
16183E	2.43033	3.47283	2.65075	2.22559	2.63456	5.237	1.99701	3.15063
1651CA	2.32026	3.78487	2.0684	1.58359	1.52267	2.58835	4.98108	10.1459
1a39de	1.91543	1.88353	1.85983	1.42407	2.09942	2.35206	2.11405	3.69314
1C5882	3.15717	1.93345	4.14721	2.33351	2.18771	1.73369	3.2117	7.73238
1E1E75	2.53071	2.13057	3.07107	1.94527	7.33142	4.85737	1.8782	3.83885
2018DB	2.13093	1.61727	3.42896	1.35145	1.99341	2.58746	1.82146	6.7713
292EDE	2.2922	1.97848	3.06243	3.59441	2.08421	3.33274	15.3649	2.29159
2d0dbc	3.62375	1.71622	2.25253	1.30594	1.39637	2.06848	1.5343	7.13371
2DA18E	2.2179	2.4537	2.89982	6.35187	5.11406	4.46045	2.48816	6.49507
2EBCCC	3.91146	1.5055	2.28375	1.53951	2.80756	2.1577	1.5895	3.68813
32AF92	2.73174	1.72939	6.28798	2.0139	2.25182	3.02586	5.15644	17.599
339A4C-B	3.03189	2.53081	1.793	1.81839	3.18309	3.59493	2.40428	4.66965
33E973	2.23567	2.8677	2.18965	1.21635	1.74805	2.59007	3.88842	5.70356
36DADB	3.36111	3.1053	2.11532	1.45158	2.3694	2.48931	2.45368	8.48821
36DEAB	1.73423	2.8681	5.10172	4.21843	2.97423	8.46973	2.98284	4.64332
3824D3	1.61159	2.81014	3.04798	1.85391	1.82957	2.07009	3.31205	3.29894
3B45E9	3.20505	2.64312	2.78696	4.29546	3.39308	10.3716	1.7693	15.0168
3F0272	2.92818	1.55003	7.90447	1.83618	16.7977	3.83746	2.3972	3.70172
434EFD	2.28579	2.82019	2.296	1.78821	2.44595	2.60468	2.06843	5.29567
48B200	1.96148	2.61772	2.93389	3.6533	2.25053	3.25646	1.28376	2.83762
49D9A4	2.98867	3.15869	2.71097	1.40169	1.96901	2.87144	3.72976	3.19195
4A64E0	2.72309	2.63574	2.85906	1.76747	2.6465	5.06809	3.10183	3.38833
4C51ED	1.95561	2.14762	2.49372	1.71666	2.38946	3.25417	2.54808	3.49694
50FA05	2.17098	2.00951	2.17511	1.99664	2.64329	7.98026	10.249	10.7832
5abo3f	1.88607	2.38801	2.51828	1.47031	3.70491	2.64425	3.82078	4.23334
5BFC20	2.53134	1.60135	2.38572	1.25122	2.8895	1.83953	1.67142	3.39565
5DD4332	2.61971	1.68849	2.11791	1.55238	3.20914	2.28613	1.61217	7.27517
5E7C0B	2.9395	1.99931	2.42377	1.37959	4.1678	2.47901	3.35795	12.9429
5EE7CF	3.34834	2.20527	6.02058	1.46496	8.79564	8.94979	3.32618	4.17409
5FF4BE	2.07498	2.98875	2.32693	1.54896	1.80673	3.28533	7.02726	4.21404
619A45	2.96243	2.72253	7.27473	2.0608	2.41681	2.83697	2.63717	4.0857
64C7C1	2.15903	3.20719	2.50103	1.58857	2.30748	2.32556	2.03535	4.17188
6a7527	3.31612	1.97199	3.77001	1.73623	3.44429	3.18337	2.56825	7.15077
6C8489	3.10162	4.39372	2.40383	1.39579	3.0763	2.09188	2.51406	1.90397
6DA768	2.19879	3.09531	6.6199	1.40745	2.2858	3.63016	29.2399	8.71958

77E07B	2.90813	1.78193	3.64299	1.58682	2.21265	4.50698	2.92486	6.30974
7aaa97	4.83862	2.0949	5.46198	1.42515	2.42081	2.83939	4.35113	4.89013
7Ac26E	2.95319	1.59595	3.84447	3.26739	3.30181	3.24177	4.31409	4.36109
7bb4aa	2.15441	2.05236	6.26292	3.59122	2.65644	2.59775	1.98907	4.07244
7d2c6a	2.06745	2.22128	2.72134	1.97737	2.3336	2.83744	6.93183	4.49835
7E2A17	2.29721	2.47754	2.48546	1.97162	4.08988	2.42361	3.01221	3.12229
80758E	2.01077	1.56878	2.0385	1.48717	5.45325	2.44336	1.25096	12.3877
81086B	2.45255	1.70684	6.80447	4.79702	3.81279	2.82723	1.88574	4.28423
83F325	1.97155	2.81728	4.39738	3.2056	5.77181	7.76247	2.53814	4.85499
F7B78	1.58832	4.21498	2.97253	1.45321	3.6488	4.15927	4.23925	2.74418

Idcodes	Screen33	Screen34	Screen35	Screen36	Screen37	Screen38	Screen39	Screen40
16183E	1.74367	2.21284	1.77751	3.58998	2.16799	2.70207	2.2419	4.25827
1651CA	2.29965	4.88363	1.71206	2.98602	1.70006	4.21289	2.8225	4.38687
1a39de	2.13033	2.11275	2.91448	3.04525	2.70719	13.5814	2.73811	8.8871
1C5882	1.7282	2.48685	1.98853	2.34343	2.7231	4.51536	1.49896	2.72845
1E1E75	2.08657	4.48433	3.01227	4.29085	2.30454	5.54533	9.45516	5.23558
2018DB	1.8962	4.53238	2.44204	2.05053	2.5286	7.762	3.03097	2.96104
292EDE	2.40207	1.91366	2.09954	6.0403	7.19207	3.93847	2.87818	2.18252
2d0dbc	1.93119	6.61838	1.86142	1.97763	4.44541	5.08389	1.68397	7.19135
2DA18E	2.37116	2.22525	4.50713	8.39761	2.98943	8.36784	19.8635	2.67639
2EBCCC	2.13445	3.35738	1.70858	1.88696	2.07642	3.55694	2.91675	5.63733
32AF92	2.11708	4.39026	1.89527	5.71058	2.18151	5.05419	21.7052	3.29068
339A4C-B	2.43124	4.30574	2.18039	4.77568	1.86006	4.74903	2.82566	1.89183
33E973	1.76348	8.14119	1.71875	4.54311	3.93957	3.92804	3.46983	4.23991
36DADB	2.05045	3.40075	3.12895	2.25479	2.50059	6.27366	2.60297	6.07918
36DEAB	2.67525	10.3805	2.66371	3.04361	4.40404	3.21212	4.37008	2.74434
3824D3	1.93484	4.38112	1.54507	4.23552	1.67593	4.82732	1.49337	3.21961
3B45E9	2.54081	1.72074	2.39284	2.64306	9.04294	3.46726	3.19747	4.46291
3F0272	1.96954	2.3785	8.50815	6.75849	4.22244	7.77881	5.39906	8.79142
434EFD	2.01155	16.308	2.33136	3.71437	2.64373	7.58794	2.03015	9.40035
48B200	2.24558	3.30716	2.18884	1.90293	5.62831	11.8299	6.13613	2.3408
49D9A4	1.83402	1.83596	2.23612	3.78027	3.75236	10.0908	2.92831	2.31866
4A64E0	2.08419	3.22828	2.38235	3.03443	4.32509	3.90697	2.66878	2.53504
4C51ED	2.19501	8.0195	2.23891	2.59906	2.311	3.33733	3.10971	2.19142
50FA05	3.043	5.57929	2.65505	8.37955	11.2559	3.17997	2.59198	4.27414
5abo3f	1.58737	2.05353	4.02782	2.9979	1.62139	2.64997	7.74414	3.34
5BFC20	1.99497	1.37371	1.65911	2.55056	1.52052	3.23281	1.57059	2.7531
5DD4332	1.41867	2.71913	1.83881	2.11985	1.72767	4.3019	2.1296	2.15951
5E7C0B	2.16277	3.46704	1.62078	3.45717	1.34912	5.39177	2.95322	2.77153
5EE7CF	2.04315	16.53	2.16956	5.76777	10.1989	6.58264	12.1795	10.6078
5FF4BE	2.05188	10.0026	1.77811	2.58253	7.1708	4.52066	5.19335	2.12316
619A45	2.36427	5.09438	2.61028	3.06799	2.79395	4.6683	3.17432	2.52434
64C7C1	2.14584	3.14271	3.91235	3.69856	4.7583	4.45464	2.34824	7.13534
6a7527	1.98528	3.74699	2.11727	3.69339	4.17963	4.47193	3.12205	1.65805

6C8489	1.94459	4.99721	2.02884	4.73836	1.85896	4.87123	2.42526	3.10774
6DA768	4.97514	5.50008	1.90345	3.17964	2.01592	19.3105	2.13443	7.02123
77E07B	1.95936	9.87203	2.01741	2.79037	11.625	5.62074	2.59209	15.164
7aaa97	3.21592	6.68413	1.93199	1.90658	5.61253	11.5314	5.54512	6.804
7Ac26E	2.30028	3.55325	1.83472	2.84468	4.3569	6.67791	6.37358	2.43527
7bb4aa	1.76977	1.47985	1.77599	2.97975	1.88768	3.50232	2.08344	3.77076
7d2c6a	1.89404	3.03651	1.79657	3.09284	3.26674	3.63707	2.30115	4.60125
7E2A17	1.97824	1.6865	1.89209	2.70666	1.76483	3.9651	2.33076	3.91299
80758E	2.34794	4.95802	2.11808	2.94232	1.73812	3.84665	2.62831	2.54301
81086B	2.82015	16.9044	2.25185	3.33876	2.14278	4.55452	2.27653	20.9669
83F325	2.42864	2.79896	1.9107	2.04953	2.36691	3.63726	5.18929	2.76753
F7B78	1.73947	3.16022	1.91161	2.42555	1.84369	3.50028	1.95992	1.88043
Idcodes	Screen41	Screen42	Screen43	Screen44	Screen45	Screen46	Screen47	Screen48
16183E	2.36611	3.46094	2.01676	3.39721	3.47721	2.51954	2.32538	2.77095
1651CA	2.15697	3.04531	1.97885	4.05559	3.42021	3.00816	2.32644	3.93158
1a39de	1.67546	2.57238	1.4664	1.61206	5.01063	4.02467	1.66853	1.35836
1C5882	1.9734	2.01398	3.97773	1.38971	3.06393	2.77991	2.09582	2.55609
1E1E75	2.58743	4.25455	1.81955	2.87983	4.24843	14.3444	2.33102	3.20072
2018DB	1.59328	2.972	1.88996	1.96806	2.0934	3.48361	2.06777	2.63008
292EDE	1.82645	3.10944	4.57572	2.80352	1.70726	7.27864	2.46164	6.33816
2d0dbc	8.8303	3.43303	2.73113	1.83335	2.45093	4.37719	2.24502	1.74773
2DA18E	4.86618	7.30348	4.77811	3.21391	2.69954	45.5709	2.63162	5.32152
2EBCCC	2.05284	3.53933	3.03135	1.96197	5.50563	3.2919	1.96191	2.04239
32AF92	3.03257	2.72314	2.18729	2.16499	5.58939	3.43164	2.80177	3.59495
339A4C-B	1.6659	4.32604	1.75458	5.157	1.97219	10.7555	2.49122	3.36945
33E973	2.83898	2.45623	1.52445	5.25713	2.67187	2.42627	1.71579	2.10011
36DADB	3.70752	2.57354	2.26318	1.80025	4.94449	6.23667	2.09238	1.85074
36DEAB	5.82023	3.06878	2.90659	3.28716	3.30747	3.50972	3.93528	2.35504
3824D3	2.85633	2.61064	2.06579	1.74051	3.53591	4.04488	1.98841	1.92875
3B45E9	3.34565	2.6118	2.97778	3.84808	2.20383	3.91717	2.86051	2.16849
3F0272	1.873	5.45981	2.32782	5.72632	4.75647	12.3807	4.70488	2.70899
434EFD	2.93659	3.81362	3.30746	3.64558	4.03543	7.38871	2.15021	2.60806
48B200	2.088	3.05581	1.59478	5.0882	1.91443	4.33309	1.8914	2.27357
49D9A4	2.63204	2.8575	3.08511	5.28384	1.68347	2.93965	2.62355	2.92397
4A64E0	2.2509	1.92149	5.0495	2.19155	7.79387	4.36444	2.03635	2.68464
4C51ED	2.36937	2.88854	1.67846	2.18986	2.52021	1.88269	4.48074	2.905
50FA05	4.98043	2.79252	2.57054	14.2338	2.68346	2.43569	1.89122	2.29755
5abo3f	2.87986	2.20045	1.63356	3.96277	1.62645	2.22922	2.35897	2.31915
5BFC20	5.53966	3.30409	4.45983	1.26688	3.69823	7.83869	2.02206	1.94646
5DD4332	5.23203	2.42605	5.8447	1.51682	1.63782	2.0848	2.51623	5.5968
5E7C0B	4.80169	2.67012	4.62063	4.26478	1.6124	2.81059	1.48043	2.15417
5EE7CF	9.30213	3.57085	5.75974	1.95318	4.82722	2.78849	2.11812	2.45396
5FF4BE	2.03499	1.6552	1.96151	5.24961	1.83965	1.89606	1.97175	2.33793
619A45	2.89243	3.3709	5.10537	5.15069	4.82971	4.05682	2.97184	2.41795

64C7C1	2.42698	2.21316	6.33963	1.76779	2.45371	8.90034	2.47207	1.82641
6a7527	1.91801	4.50278	6.99436	1.54988	1.61481	2.3005	2.73694	3.04507
6C8489	2.42115	2.04207	3.15409	1.79609	2.49193	2.76754	3.06402	3.62025
6DA768	3.24877	2.86318	2.07553	8.66739	2.42149	2.86617	1.67665	1.81959
77E07B	3.55556	3.43707	9.68572	5.45835	5.22992	3.49634	2.47768	9.73283
7aaa97	2.74738	2.49378	5.85197	15.2587	2.53472	1.57773	4.10486	1.97262
7Ac26E	1.85945	2.75996	4.40026	1.77633	3.63609	4.30053	2.49643	3.21333
7bb4aa	2.32845	3.09578	4.44304	2.0277	2.40486	3.18921	3.73522	1.58707
7d2c6a	4.84112	3.28207	4.73844	2.82272	2.51416	2.38023	2.98462	2.18037
7E2A17	2.90768	2.11397	2.01539	2.36378	1.8441	2.44348	4.54802	2.15167
80758E	3.76299	2.72322	1.49958	1.60744	1.88573	1.97106	1.99412	1.51527
81086B	2.97953	2.5141	2.43407	3.78823	3.43058	8.80065	3.8251	2.99511
83F325	4.62939	3.88046	6.26459	2.06924	2.57416	5.46918	1.77483	2.30876
F7B78	4.11263	2.64278	2.11546	3.17934	1.83983	2.57489	2.10899	2.00743

Idcodes	Screen49	Screen50	Screen51	Screen52	Screen53	Screen54	Screen55	Screen56
16183E	3.52153	11.6498	7.87222	2.2663	3.74868	4.23077	2.36054	5.32108
1651CA	4.83431	3.49225	2.36192	3.33844	3.70343	5.52476	4.25169	3.22554
1a39de	3.53457	17.9747	1.96321	1.5251	1.68952	3.09707	2.48355	2.40448
1C5882	3.97184	2.72949	2.69636	15.0372	2.38931	7.89593	5.50784	3.16591
1E1E75	9.66532	8.21154	2.88931	3.28777	7.54206	2.09884	12.9824	3.31041
2018DB	3.99177	13.7547	2.82993	3.3335	2.92542	5.53116	5.21741	3.60548
292EDE	4.9101	4.63241	6.48258	6.93123	6.75367	2.21162	7.12126	2.8596
2d0dbc	10.215	16.9235	2.57012	2.90628	2.5548	2.3849	5.88908	3.63947
2DA18E	7.16146	3.12477	2.73738	7.19877	6.56698	5.73288	2.87483	6.43761
2EBCCC	2.55386	18.1906	1.59069	1.6652	17.8607	1.65608	2.32412	2.08423
32AF92	4.66791	34.3518	3.1054	2.35548	13.5483	2.48668	10.1002	4.05668
339A4C-B	5.24721	4.71062	8.10388	4.79476	4.08663	2.17989	5.06477	2.42948
33E973	6.26479	35.8477	1.72409	3.14863	3.98303	5.77654	11.3187	5.09481
36DADB	4.59289	6.91494	3.62918	2.61533	13.9721	9.6824	16.1472	3.4051
36DEAB	3.07591	21.2059	2.234	2.08513	8.29063	5.26504	5.95656	3.10785
3824D3	9.87693	3.03693	2.91703	9.86957	3.48773	3.23	6.88843	4.63854
3B45E9	2.65517	12.3631	6.54734	8.34207	3.85811	4.8626	8.66641	4.49463
3F0272	3.47908	3.9618	22.0886	2.88591	18.2378	4.39697	12.038	3.34928
434EFD	11.0539	2.72377	2.1082	4.91113	6.37744	1.39752	3.30913	3.24016
48B200	3.02761	14.51	3.01623	4.02072	6.35296	16.1008	2.21459	2.94123
49D9A4	7.58808	3.25407	2.26837	2.88662	2.89285	2.73061	2.05703	6.04533
4A64E0	3.51675	2.93264	2.37034	4.97699	2.76462	2.3251	7.03559	2.35541
4C51ED	5.29262	4.53497	4.1448	2.9417	6.67418	9.30071	5.86405	5.82853
50FA05	3.67751	9.80632	1.94766	3.98301	5.74718	4.85403	2.96276	2.23223
5abo3f	2.23082	3.73883	3.42921	2.38408	2.81978	8.23185	4.57177	6.18441
5BFC20	2.78817	3.20655	1.7642	3.69995	4.06545	5.41072	3.02451	1.90866
5DD4332	2.21274	3.7158	2.1149	2.30215	6.6338	2.87941	4.68406	2.41228
5E7C0B	2.77033	4.32119	4.15299	1.41102	14.8107	6.60805	6.57395	3.20477
5EE7CF	12.1585	8.13292	8.64861	4.73755	7.30231	8.6116	21.4654	11.6198

5FF4BE	2.79777	2.89404	2.85218	1.89828	8.85477	8.17214	1.97934	5.65555
619A45	15.3033	10.3066	2.37237	5.01921	2.05497	1.80824	4.35524	4.10011
64C7C1	3.18806	3.68667	4.45292	12.0684	3.39763	5.39967	3.40578	1.86147
6a7527	7.79521	2.61105	2.3857	3.17177	12.4668	7.34885	2.86241	2.95448
6C8489	11.9851	6.17133	1.50504	5.91584	1.80294	4.63593	7.62019	6.48433
6DA768	3.1363	3.83626	6.92465	2.94056	7.32862	8.45573	5.86786	2.42166
77E07B	4.25971	4.74474	13.7879	3.7834	3.7059	1.9589	3.50026	4.97022
7aaa97	2.25859	2.27882	5.51128	10.7779	2.66179	7.76248	4.03402	3.18366
7Ac26E	2.89886	3.05524	3.33067	4.44969	14.5038	2.67749	4.22007	3.08064
7bb4aa	3.58131	12.3301	2.73582	3.04453	3.38069	5.61691	3.59718	5.06081
7d2c6a	3.11246	15.4921	2.36104	4.04487	10.6819	2.21825	2.01425	2.42472
7E2A17	3.01638	5.52712	2.25062	4.08111	3.09751	10.7977	2.47778	4.89449
80758E	3.284	4.51836	2.06784	5.14222	1.61039	1.87218	2.80422	2.7945
81086B	4.27503	7.39563	5.01978	4.58404	2.02733	5.1104	2.37609	5.70083
83F325	7.32755	5.22907	2.54342	2.79224	8.75056	1.79933	5.26429	7.71679
F7B78	6.14938	17.0001	4.26433	3.21281	2.15462	1.87694	12.1095	4.11282

Idcodes	Screen57	Screen58	Screen59	Screen60	Screen61	Screen62	Screen63	Screen64
16183E	2.36111	2.45698	3.97333	2.73131	1.96927	4.1282	3.94195	10.2994
1651CA	1.80328	1.89361	2.36144	5.90556	2.33941	4.59265	1.88175	11.7472
1a39de	5.00432	2.08838	2.93059	5.94467	2.24446	8.02942	4.61497	9.40565
1C5882	1.16341	2.46012	6.60836	3.43853	5.5906	7.47335	4.38664	2.47772
1E1E75	2.70902	3.1508	6.17696	5.50247	3.36164	3.82568	10.2615	22.0288
2018DB	2.75531	3.37573	4.45572	2.70054	1.85813	3.34063	5.93684	18.3041
292EDE	4.80623	2.42827	2.62198	3.64249	2.75445	3.73264	4.61063	3.75617
2d0dbc	3.25513	2.51263	2.13378	3.7074	1.78161	11.4583	6.95058	9.98711
2DA18E	15.1665	3.49189	6.00961	4.36109	3.09607	14.2521	7.48304	11.3876
2EBCCC	2.51605	2.18055	3.20885	3.03889	2.03068	5.34462	4.92521	4.69921
32AF92	2.12397	2.26909	26.2414	11.1939	2.36991	2.17618	18.3023	30.6514
339A4C-B	2.15909	3.15075	5.90568	2.20433	1.79539	2.5613	4.49977	16.1858
33E973	4.33376	3.09956	7.95195	8.54656	5.6683	5.99219	1.89636	2.63683
36DADB	3.31512	2.9151	5.73173	4.45744	9.02987	4.48047	4.33607	3.4073
36DEAB	3.32043	2.62185	10.6423	3.46894	2.24472	3.93298	4.10701	24.871
3824D3	1.43016	1.86422	3.80439	2.87301	1.87895	2.0411	6.927	5.36601
3B45E9	1.71444	2.33363	4.08292	5.58542	2.94907	2.57562	11.8281	11.9264
3F0272	2.0873	3.28611	3.95572	9.57998	2.19336	3.69035	11.9612	47.0037
434EFD	2.60729	2.50135	5.18544	4.74751	5.07037	2.54744	3.77843	2.56644
48B200	2.19343	1.92316	2.22715	4.73529	1.95336	2.54151	8.49674	6.66312
49D9A4	3.33092	3.24253	5.1853	2.32312	2.00388	2.82817	10.9506	25.4183
4A64E0	3.05163	2.73914	8.08599	6.74803	2.4861	2.49268	6.45086	2.89684
4C51ED	2.11822	1.80073	2.54179	2.11265	3.22021	2.7626	2.56938	2.70795
50FA05	5.37357	4.23826	8.33158	6.45548	11.3664	2.40423	10.3023	3.2872
5abo3f	4.14863	2.81463	3.75003	2.66338	2.24283	10.0837	20.6868	2.18102
5BFC20	1.80676	2.50119	2.7695	9.39996	1.82516	4.68296	3.85929	25.3071
5DD4332	2.33846	2.24581	2.95584	4.71051	3.93405	2.12704	3.05035	2.74451

5E7C0B	2.86806	2.85987	3.82675	3.45322	1.59503	6.79532	6.90772	16.0397
5EE7CF	3.47352	2.30512	5.95544	10.4652	3.01392	3.19135	25.0738	20.2697
5FF4BE	1.88377	1.8199	2.99244	5.08998	2.48768	1.73444	7.87641	2.30392
619A45	4.21583	2.68335	2.77958	5.69795	8.26046	3.32849	21.9284	22.6719
64C7C1	1.69602	1.49937	3.47961	4.87197	1.89046	2.39312	6.86652	3.49317
6a7527	2.09284	2.3069	2.39688	4.61357	3.09923	3.46404	3.03586	16.1978
6C8489	2.00811	2.35057	9.38479	3.27058	4.65499	4.28905	19.4369	4.21973
6DA768	1.97756	2.42967	5.58401	6.12417	1.74817	4.21487	18.7339	5.80365
77E07B	2.86382	4.26665	2.23609	3.89252	2.65116	3.97114	4.2874	2.77562
7aaa97	5.78488	2.13239	7.14714	10.8293	2.4154	1.78997	4.86958	15.1127
7Ac26E	2.24841	3.18219	2.11423	3.40468	1.66021	3.92943	6.22301	6.91563
7bb4aa	2.66465	3.14151	8.70552	6.10794	2.32595	6.08432	5.89251	11.051
7d2c6a	4.72165	2.40264	4.22491	2.26501	1.91061	3.3783	17.4985	10.6257
7E2A17	1.89172	2.02145	4.34194	2.6909	1.92779	1.92658	21.9827	9.81921
80758E	1.47667	2.15664	4.02097	2.34483	2.82086	2.83355	2.80349	2.93153
81086B	6.21681	3.77285	20.5168	2.81971	1.82373	3.29161	17.2358	14.2691
83F325	3.34098	2.3767	4.00507	3.40296	2.74685	2.68515	4.18753	18.6796
F7B78	2.32114	2.40158	7.10613	2.80832	2.02616	2.13274	6.27453	4.59883

Idcodes	Screen65	Screen66	Screen67	Screen68	Screen69	Screen70	Screen71	Screen72
16183E	2.72628	4.77857	9.13665	3.00505	2.07497	3.125	3.51797	3.39903
1651CA	2.79624	3.39678	2.37216	1.935	7.39073	2.15306	5.6673	3.82146
1a39de	1.62741	1.62223	6.60195	3.0504	1.65643	4.22016	1.8241	6.33295
1C5882	2.18948	1.79964	7.00786	4.53077	2.24395	1.56381	4.66767	6.48636
1E1E75	2.5785	5.06055	87.1201	3.27003	1.88033	7.21611	2.74828	3.27253
2018DB	1.71321	1.78853	4.77346	2.27565	1.77956	3.072	2.04172	8.9162
292EDE	3.40875	2.42976	2.88081	2.68181	2.24964	5.54352	6.31559	2.99599
2d0dbc	2.29169	5.15345	8.25918	1.75928	1.5514	4.53297	1.95164	2.99958
2DA18E	3.19728	3.31877	11.6298	5.64805	2.05456	2.58043	1.84884	3.23075
2EBCCC	2.13477	4.1334	2.25947	2.63145	7.60206	4.7541	3.53181	3.26744
32AF92	2.70329	2.23914	6.12405	2.19681	2.15618	2.3798	7.16042	3.73788
339A4C-B	5.29066	2.4078	6.59889	1.55898	7.69518	1.70176	1.65539	3.14011
33E973	1.58096	1.60725	2.43893	1.8151	2.90651	1.62078	2.22599	3.70412
36DADB	1.77048	3.23246	24.444	2.20305	16.3325	6.17036	2.45637	3.13331
36DEAB	7.89575	2.88394	2.69162	2.27449	7.53208	10.875	3.60327	4.48633
3824D3	2.22766	5.08669	17.122	1.95374	5.86275	4.05069	4.8328	3.08341
3B45E9	2.4518	2.38664	3.78889	1.95894	1.93477	2.36537	3.30873	3.36957
3F0272	5.69846	2.35035	17.6177	2.85361	1.77165	1.68888	13.2483	11.7745
434EFD	3.84625	3.54644	8.46906	2.74545	6.54534	1.85941	2.44888	2.73351
48B200	2.37601	4.76469	5.51676	2.1005	9.53694	6.69144	4.45202	4.94586
49D9A4	2.58917	2.32735	17.5913	2.77551	5.95639	5.41685	5.40075	3.46512
4A64E0	2.42894	1.79549	2.71952	2.8397	1.92735	2.31396	5.06353	4.05164
4C51ED	2.7455	5.08358	19.5019	2.7842	3.46853	4.19061	2.77659	2.91685
50FA05	4.02335	3.81254	18.835	1.65988	9.92924	6.84619	4.46916	2.20541
5abo3f	2.57462	2.57214	5.85106	2.19962	4.23385	2.33906	3.91117	5.29296

5BFC20	2.00124	1.75492	1.53996	1.60014	3.71147	5.52168	3.42535	4.39721
5DD4332	1.77273	1.59644	13.9718	1.62872	3.56352	9.72425	2.06033	2.87248
5E7C0B	1.62214	4.73054	7.07239	1.80993	1.74487	1.32486	4.35683	4.20518
5EE7CF	2.07722	1.77383	19.3832	3.41477	3.34161	2.08873	6.13655	2.75541
5FF4BE	3.96884	4.13471	5.14886	2.90299	3.88332	1.82702	2.94922	2.42415
619A45	2.23215	5.14628	11.6768	2.06863	2.28697	2.08503	3.68326	5.28337
64C7C1	2.39525	3.06731	11.0217	2.76951	3.80423	2.23356	2.70578	2.34022
6a7527	1.83595	7.02811	4.34237	2.12308	1.94648	6.66126	4.2091	6.35753
6C8489	2.63189	2.24236	5.53017	2.86438	3.56544	1.9314	3.70522	5.30009
6DA768	1.94792	5.53447	19.8616	2.52837	6.99865	3.9912	2.80057	3.52103
77E07B	2.19393	2.8761	11.4577	1.60859	3.84646	2.63172	3.31954	3.15438
7aaa97	4.40279	2.00297	3.72262	2.32086	7.09483	6.87304	3.57945	2.42269
7Ac26E	2.13137	2.76118	3.80115	1.82625	2.16368	2.08783	1.64968	2.81611
7bb4aa	1.97659	2.82111	3.00092	3.16956	2.74317	4.01975	5.19908	3.39187
7d2c6a	2.62043	2.46494	4.57232	2.22627	2.12499	2.62072	4.8645	3.01312
7E2A17	2.23732	2.12548	2.95499	1.7179	4.34927	1.93579	3.06765	2.49477
80758E	2.0975	1.75017	2.42349	2.73181	13.5787	2.41701	6.90661	2.77334
81086B	2.56637	3.4997	11.4076	1.78921	8.2638	1.60542	6.80404	3.26706
83F325	2.37394	1.62853	7.062	2.46964	4.30085	2.74463	3.34847	3.37523
F7B78	2.99659	1.95135	4.33464	7.29291	2.1948	1.53582	2.22529	5.70695

Idcodes	Screen73	Screen74	Screen75	Screen76	Screen77	Screen78	Screen79	Screen80
16183E	2.14958	4.95171	3.55371	30.975	3.69678	2.91453	9.31139	2.55315
1651CA	4.88181	9.79404	3.50826	6.90299	3.29841	3.10081	6.19524	16.2079
1a39de	17.3641	2.97936	3.69538	14.702	3.44052	2.02449	14.6692	1.53528
1C5882	6.44481	8.39892	3.55671	5.47035	4.12711	2.15768	7.65383	4.2687
1E1E75	6.46499	8.60662	8.45944	28.8665	10.3143	2.27723	1.9007	7.19516
2018DB	5.05941	2.94281	2.90636	2.53085	8.79468	2.04492	8.88617	1.50366
292EDE	4.6358	3.08525	3.62652	4.4137	2.43488	4.39046	9.11881	1.66743
2d0dbc	11.9387	4.63163	3.73691	12.9992	3.00522	1.89119	1.46474	6.26138
2DA18E	3.52047	6.88859	3.02331	19.613	21.1878	2.1817	20.194	3.50913
2EBCCC	17.8546	3.54736	2.66885	3.4875	2.39743	1.6138	3.21927	2.55149
32AF92	5.49322	5.34397	5.67174	27.9933	10.0773	2.99326	5.58386	7.66083
339A4C-B	3.97587	11.318	3.66913	13.1767	2.46644	1.8693	2.54323	2.05151
33E973	3.91131	5.74586	5.22831	17.8363	4.06223	1.73842	1.46308	2.65858
36DADB	5.49882	6.10046	3.33884	4.81243	3.66139	1.47321	2.56324	1.52334
36DEAB	8.06522	10.3077	3.28583	11.1343	17.3476	1.97315	2.44316	14.484
3824D3	3.53157	5.53745	2.50934	5.45403	1.80562	2.80406	6.39586	12.3518
3B45E9	7.35588	9.18926	3.46162	4.6502	2.3279	2.3344	4.99013	1.42249
3F0272	48.5994	17.7259	3.14877	20.895	3.05955	2.42549	4.63497	1.42816
434EFD	4.19591	3.42632	4.22187	5.24301	2.73889	2.3278	2.45211	3.93214
48B200	9.476	6.41253	4.22653	1.57178	4.38698	1.55962	14.6858	6.80427
49D9A4	10.4193	13.696	7.16372	1.9004	26.6661	2.01286	9.14543	5.31621
4A64E0	3.61043	4.00019	3.77669	13.645	15.5727	2.1609	1.97761	2.05017
4C51ED	3.14188	3.85009	2.44763	2.29015	8.19531	1.97992	6.19984	2.19549

50FA05	17.7742	4.12527	7.87355	10.1965	1.75634	3.92477	23.662	1.89207
5abo3f	5.69533	4.18794	3.11806	3.95962	4.1186	2.05772	11.8362	3.86236
5BFC20	7.76615	1.77321	2.12046	36.696	9.22981	2.06456	4.07641	6.81271
5DD4332	13.0543	2.90487	2.21259	25.8532	9.88997	2.06386	2.90834	3.00624
5E7C0B	5.16327	2.38745	2.14972	5.58999	22.0593	1.49465	1.79645	8.15671
5EE7CF	3.61944	5.37679	2.40443	46.2467	6.65154	1.90568	7.58196	2.2559
5FF4BE	2.58771	4.39003	5.38393	10.1506	11.119	1.74277	4.65103	4.30832
619A45	5.98767	6.6698	6.7449	23.5025	3.64878	2.18372	14.9477	4.87475
64C7C1	5.61652	5.19248	4.81484	4.61765	33.747	3.8785	8.85197	4.32277
6a7527	9.92824	5.15013	6.17617	2.49187	2.202	1.65827	1.80633	1.56553
6C8489	3.78327	8.07589	3.17195	67.8459	30.4041	3.43086	6.19706	3.41311
6DA768	3.90567	8.05983	3.61587	5.40422	3.45201	2.54997	10.4525	1.76212
77E07B	3.42648	7.15517	5.07483	18.1601	2.28632	2.10777	23.4814	1.92688
7aaa97	14.7327	4.58594	5.94056	20.3931	20.1119	1.52208	3.59745	1.24638
7Ac26E	5.78069	2.13659	3.42847	4.81043	5.62132	1.80968	1.56771	2.9976
7bb4aa	13.5384	4.08753	5.93333	4.21897	6.24069	1.9044	3.44271	17.9175
7d2c6a	4.38708	5.78712	4.05587	16.565	3.11626	2.2206	2.0481	1.60614
7E2A17	5.66863	8.30309	5.20294	5.92286	2.99498	1.53319	1.84301	8.70943
80758E	6.1953	2.99203	3.96568	4.40626	4.82573	1.84009	6.02001	3.89269
81086B	3.90127	11.8584	6.64535	2.47083	10.743	4.39433	2.59508	15.9433
83F325	6.58787	4.59981	3.71769	9.90161	4.53828	1.87273	2.71986	1.67382
F7B78	2.46963	4.16807	5.04586	17.8067	1.90661	3.74081	1.96077	3.19107

Idcodes	Screen81	Screen82	Screen83	Screen84	Screen85	Screen86	Screen87	Screen88
16183E	5.07522	7.42104	11.7126	5.37076	7.4486	2.05067	17.6718	6.09009
1651CA	2.88202	4.66596	2.90792	2.59028	3.72006	4.00815	4.63059	6.38472
1a39de	2.27556	2.1441	16.8573	3.68401	19.9576	1.8603	3.2652	5.58476
1C5882	3.25394	3.99663	2.65188	7.53326	5.90565	10.1959	4.19514	2.4438
1E1E75	7.71271	3.50006	17.4494	15.9449	4.62842	2.76577	7.49193	4.40402
2018DB	2.01581	2.78031	5.36026	4.99947	4.32891	1.73524	4.0985	5.29756
292EDE	2.21761	2.68388	3.47847	2.35887	3.7338	4.43636	8.31681	12.366
2d0dbc	6.06558	5.06014	11.4969	2.71868	15.1099	5.97843	21.509	9.01678
2DA18E	4.31742	8.40645	14.8364	8.11486	16.6801	3.3837	18.8534	7.02625
2EBCCC	6.18606	2.66802	19.048	1.91813	2.49249	7.31544	3.66056	2.56918
32AF92	4.97498	3.96929	5.9319	10.9561	5.18688	2.48333	33.9349	11.6286
339A4C-B	2.20913	6.3757	3.84334	8.11287	21.8638	8.50249	3.10279	4.10695
33E973	3.60654	2.47269	4.00732	6.85773	16.6518	1.52805	3.5826	3.59211
36DADB	3.52329	4.98027	9.40041	2.05629	4.75657	1.59765	31.9429	6.50582
36DEAB	3.39548	5.31983	3.52373	3.0552	3.34396	2.35998	22.0627	10.1857
3824D3	2.19014	1.83309	4.77144	1.97853	21.3944	4.04824	2.92584	4.42403
3B45E9	1.76233	2.7411	4.20726	4.57365	7.33247	6.9141	17.4707	10.2716
3F0272	5.66167	8.08241	15.0283	14.8076	3.67871	1.91625	12.9409	15.7462
434EFD	3.74512	2.21142	3.93729	2.85921	3.10607	1.93945	5.18424	3.82792
48B200	4.01171	6.93836	3.6701	7.11236	5.17918	4.03075	4.65755	4.12513
49D9A4	2.68359	5.32399	4.51588	4.28407	14.8936	6.39506	3.53096	3.58542

4A64E0	2.90745	4.30152	9.95419	1.87026	2.44637	3.37283	14.1955	11.6198
4C51ED	2.42449	2.28776	4.31443	2.32956	5.03455	4.01439	3.15428	4.5891
50FA05	5.39967	4.63988	3.86361	2.51201	9.50285	2.33806	6.28703	3.50087
5abo3f	2.23924	2.52401	3.51108	2.17693	2.90312	8.87367	34.7999	13.4855
5BFC20	5.33885	4.66337	6.48337	6.93397	3.12394	3.78566	2.46014	3.03978
5DD4332	3.51709	3.90886	3.36713	3.14001	6.19317	1.95537	34.5101	3.35903
5E7C0B	4.98893	2.47113	7.29821	3.60579	7.84382	1.29521	21.7061	6.3486
5EE7CF	5.90901	5.27904	25.3928	9.13854	8.72733	6.19633	2.52506	13.7777
5FF4BE	3.09899	4.18388	6.81188	4.62193	5.5583	1.82252	8.80313	6.1067
619A45	2.99987	2.29604	4.26846	3.94495	9.3068	1.91704	25.3755	18.1955
64C7C1	15.1559	6.47917	35.2696	4.58253	5.18702	13.5098	3.08773	12.5261
6a7527	3.0106	5.54648	6.32318	5.72165	3.19556	2.0867	2.32168	6.404
6C8489	3.17151	6.44392	26.4516	2.64913	14.2559	4.46504	12.078	3.50047
6DA768	4.17074	2.2947	18.1933	4.55399	22.5186	1.50012	3.68098	19.5165
77E07B	4.34906	6.03878	7.54479	1.83591	5.78808	6.15808	17.4014	4.25328
7aaa97	5.90008	5.89665	7.70042	8.42569	2.46774	1.90543	4.92748	12.7578
7Ac26E	5.93328	2.10139	4.78362	2.67466	4.46293	3.92242	4.91499	4.42124
7bb4aa	4.20408	4.48433	15.8947	2.84603	26.9315	2.50557	38.1572	29.71
7d2c6a	4.21242	3.09083	6.77702	4.7029	7.05024	2.1689	22.4553	16.4762
7E2A17	1.50928	2.81624	16.4213	1.99981	3.00891	2.12774	3.91678	4.15591
80758E	4.82238	4.35358	4.30916	1.97152	16.6469	10.0114	27.4117	4.04096
81086B	6.87235	4.62742	4.75956	14.2752	7.14358	1.6082	6.30382	5.30875
83F325	6.78198	2.9994	9.34314	4.12771	3.59377	3.1066	9.83175	6.96667
F7B78	1.7872	2.21505	15.362	2.28191	8.31509	3.29026	7.96073	9.4494
Idcodes	Screen89	Screen90	Screen91	Screen92	Screen93	Screen94	Screen95	Screen96
16183E	7.14204	5.78163	6.44637	3.94082	5.41117	3.91934	6.7115	3.20399
1651CA	2.47859	15.8069	2.53113	6.04274	4.85017	3.51096	5.77031	5.09735
1a39de	4.86318	12.2595	5.14351	5.85918	4.96811	2.99849	4.92687	13.2697
1C5882	17.4851	4.52267	2.70625	47.084	3.92604	9.13655	4.48836	10.4636
1E1E75	3.00935	7.91252	3.52943	48.3403	6.19764	4.11771	3.56676	11.3295
2018DB	2.30693	7.35978	2.02144	5.1225	4.4587	2.4621	3.48958	4.36784
292EDE	7.31482	7.0936	6.15638	18.7746	6.85823	3.21359	3.84439	34.4398
2d0dbc	5.35482	15.3656	9.12324	5.16334	6.38824	2.47036	3.87974	4.32908
2DA18E	5.88492	8.88747	3.37049	9.24782	5.67201	3.62257	6.56602	12.1756
2EBCCC	2.17333	30.8349	8.58283	5.46727	5.05388	2.00793	3.00168	6.6258
32AF92	3.18191	7.14446	6.71123	4.26497	21.6872	3.46911	3.71815	2.7111
339A4C-B	5.74163	28.6669	2.01217	8.54894	4.03718	4.02137	7.26545	3.55544
33E973	4.44575	21.1598	5.65134	5.45795	3.26987	8.24315	3.62462	2.55399
36DADB	2.90897	24.3599	8.07063	11.7618	6.65752	3.8068	5.56361	11.5647
36DEAB	20.6851	6.02119	4.21455	5.83728	12.4073	2.03534	6.67619	5.06225
3824D3	3.76941	5.01433	2.10138	10.9023	7.77343	1.78076	3.64785	5.60451
3B45E9	1.81617	6.46224	2.18472	6.47741	11.9194	3.26227	5.1301	11.0818
3F0272	4.38795	15.0577	17.6824	8.15466	14.5167	3.3166	10.2158	7.10422
434EFD	5.06975	23.8433	2.61689	3.286	7.19528	3.61753	5.94369	3.24464

48B200	3.17907	5.14088	2.05106	4.37302	2.89653	18.3359	3.45656	4.80578
49D9A4	2.17903	7.07951	2.50354	9.06825	11.9425	4.04005	10.1069	20.6228
4A64E0	11.5997	2.85575	2.80395	12.2368	2.30877	2.40863	3.84452	7.75127
4C51ED	3.04759	8.13598	3.46527	3.13276	3.87399	3.24178	3.43591	2.79044
50FA05	3.56924	6.01599	2.25103	6.71383	3.81966	4.24411	8.38466	2.75238
5abo3f	2.01301	3.93647	4.31724	8.91315	3.41612	2.81253	4.61907	29.7544
5BFC20	2.9758	5.42114	4.47432	10.5721	4.44889	5.36751	2.78121	7.60789
5DD4332	1.73451	8.26649	1.92702	9.11629	3.86987	2.32947	2.68556	3.02
5E7C0B	2.14097	11.1142	2.89972	5.25613	7.70003	2.48214	6.21676	3.22611
5EE7CF	2.20667	8.70421	5.85142	42.2408	17.8262	3.27659	3.73267	59.2199
5FF4BE	5.95763	7.4054	2.57091	4.47773	3.33766	2.72727	1.86797	2.21049
619A45	3.16216	4.43644	17.1326	6.44164	13.0659	7.30014	2.49666	18.4234
64C7C1	4.70789	7.88103	3.49454	10.4237	4.59288	5.45962	3.83148	51.1215
6a7527	3.77012	9.24018	5.59216	3.72291	6.53237	1.94567	5.12337	2.7037
6C8489	4.17828	5.79206	2.74394	14.4374	4.11738	65.987	9.64208	3.09772
6DA768	5.1771	5.87842	3.74168	16.3566	11.9466	2.70886	1.92107	9.24074
77E07B	9.02306	4.05152	2.65631	4.82482	2.55943	5.72147	3.95261	20.9653
7aaa97	3.40597	6.32384	2.3477	4.16506	10.3336	2.80477	2.99536	6.58737
7Ac26E	2.08857	4.71118	4.03408	5.0754	8.61144	2.21089	3.70434	48.0394
7bb4aa	3.00629	21.4238	22.7392	59.1162	36.5552	4.83721	4.42551	22.5816
7d2c6a	2.20266	14.3633	2.58741	7.61028	5.22855	4.22603	3.2164	5.54083
7E2A17	1.97318	3.34449	2.22265	18.5253	5.52216	3.85972	5.58287	11.9849
80758E	1.48859	6.27875	3.29545	5.17981	2.97556	3.42924	2.82972	3.08527
81086B	2.86348	5.6509	5.96046	6.1711	5.75245	5.94546	5.79757	50.5149
83F325	7.54222	6.48196	5.11441	13.0053	4.47585	3.60382	5.26801	5.92645
F7B78	4.69618	6.56516	6.66553	13.7851	2.71044	2.31727	5.68034	6.39447

Idcodes	Screen97	Screen98	Screen99	Screen100
16183E	7.14713	3.98818	11.9279	4.26823
1651CA	8.3566	4.3487	6.7515	9.10997
1a39de	21.0327	4.2027	2.68959	2.91759
1C5882	4.21121	7.46805	3.63523	2.33113
1E1E75	23.1488	3.97392	40.671	4.15874
2018DB	1.71853	3.31864	7.06307	2.80914
292EDE	2.57343	3.46853	4.80567	4.04149
2d0dbc	11.2078	10.3495	5.20061	1.99018
2DA18E	4.24872	4.00084	13.9516	3.82052
2EBCCC	10.6684	5.48061	4.79057	2.86423
32AF92	63.6521	19.1544	5.21925	3.93546
339A4C-B	17.1968	3.99969	5.22052	2.52876
33E973	4.40707	4.53159	6.65245	4.38567
36DADB	21.2698	2.82969	9.36165	3.61961
36DEAB	9.5928	8.17896	14.3106	2.45776
3824D3	5.7666	3.09266	17.2795	3.7949
3B45E9	4.58484	12.0625	3.54544	7.91535

3F0272	3.50949	10.7281	13.4229	5.82955
434EFD	3.03594	6.20489	4.07696	5.58852
48B200	4.40281	9.16404	4.71511	2.42191
49D9A4	11.5943	13.4202	34.9233	3.00454
4A64E0	2.59145	11.0738	31.8224	2.46466
4C51ED	5.34295	2.07802	3.57064	3.73794
50FA05	17.3117	6.48119	5.47364	4.23599
5abo3f	10.9619	5.12248	2.89884	3.93271
5BFC20	9.07953	7.34466	3.49172	1.73018
5DD4332	1.48845	6.10221	3.99415	2.40698
5E7C0B	5.06255	23.853	6.1056	2.86337
5EE7CF	1.87955	8.43348	10.1476	3.38693
5FF4BE	3.63646	2.29772	2.3689	2.55432
619A45	2.38448	2.19751	5.86889	3.62307
64C7C1	3.65129	2.86816	16.9007	3.31341
6a7527	4.43187	5.1619	3.4738	2.81021
6C8489	3.95852	4.84604	3.02022	3.40471
6DA768	1.80747	4.61576	20.1802	6.01622
77E07B	22.924	25.1723	8.04057	2.93675
7aaa97	6.23801	21.0964	10.2675	4.6012
7Ac26E	3.02944	8.07983	4.80087	1.87971
7bb4aa	4.76861	19.4746	33.6119	3.31016
7d2c6a	7.16075	8.08116	11.0089	3.3229
7E2A17	2.36687	9.9576	8.13487	2.63455
80758E	1.28588	2.67063	5.03035	2.4506
81086B	2.50543	22.9412	7.53451	2.94855
83F325	17.5817	3.41823	5.35663	12.1494
F7B78	3.99517	6.57197	8.89757	1.96038

Table E.1 Raw Icon Search Times

APPENDIX F

Raw data from Decision Making Task

Participant ID	O	C	E	A	N	Num Q	Total Time
16183E	53	69	42	79	43	14	6.204438363
1651CA	7	98	59	97	1	32	4.113917336
1a39de	1	79	27	27	76	20	2.820567703
1C5882	65	95	70	83	22	31	3.745081971
2018DB	12	74	70	74	27	13	3.176961294
292EDE	16	92	37	96	27	19	9.120133839
2d0dbc	76	97	42	96	27	18	4.322194258
2EBCCC	65	83	79	87	37	32	2.848511145
339A4C-B	2	94	64	94	5	5	4.11107645
3824D3	4	95	93	79	14	20	5.056275189
48B200	2	64	93	83	27	7	4.124048744
49D9A4	20	94	42	93	43	28	4.978981904
5abo3f	41	69	70	74	18	21	7.714954615
5BFC20	84	74	86	93	43	6	4.112688263
5E7C0B	35	86	97	38	43	29	2.934102091
5FF4BE	35	97	95	79	9	23	2.982571343
619A45	30	86	83	69	55	26	4.601486059
64C7C1	88	79	74	90	32	4	3.077104211
6a7527	84	52	18	74	32	4	10.48820943
6C8489	1	35	79	74	27	3	4.362479369
6DA768	53	52	79	22	66	34	5.647119382
7aaa97	2	52	83	63	66	12	3.926716149
7Ac26E	10	79	86	96	18	12	4.820295254
7bb4aa	16	58	91	83	32	7	6.057361671
7d2c6a	76	89	96	87	43	12	4.550178866
80758E	12	41	12	93	27	32	6.120812923

Table F.1 Raw Data From Decision Making Task

APPENDIX G

Raw data from Organizational Task

	Num		Title	Desriptive	Average	Average	Total	
Participant	Jobs	NumProjects	NJ+NP	Words	Words	Title	Description	Words
16183E	3	13	16	31	57	2.38	3.56	88
1651CA	1	1	2	4	34	4.00	17.00	38
1a39de	1	2	3	8	17	4.00	5.67	25
1C5882	1	3	4	6	63	2.00	15.75	69
1E1E75	1	3	4	11	241	3.67	60.25	252
2018DB	1	4	5	11	63	2.75	12.60	74
292EDE	2	3	5	13	83	4.33	16.60	96
2d0dbc	1	5	6	12	155	2.40	25.83	167
2DA18E	1	3	4	9	125	3.00	31.25	134
30DADB	1	4	5	10	154	2.50	30.80	164
32AF92	1	9	10	16	70	1.78	7.00	86
33E973	1	9	10	24	94	2.67	9.40	118
3824D3	1	5	6	12	94	2.40	15.67	106
3B45E9	2	6	8	12	117	2.00	14.63	129
3F0272	1	7	8	12	65	1.71	8.13	77
434EFD	1	8	9	24	134	3.00	14.89	158
48B200	1	4	5	10	124	2.50	24.80	134
49D9A4	1	3	4	6	80	2.00	20.00	86
4A64E0	1	4	5	6	48	1.50	9.60	54
4C51ED	1	2	3	5	71	2.50	23.67	76
50FA05	1	5	6	22	87	4.40	14.50	109
5abo3f	1	6	7	30	112	5.00	16.00	142
5DD4332	1	1	2	7	185	7.00	92.50	192
5E7C0B	1	7	8	21	66	3.00	8.25	87
619A45	1	3	4	9	25	3.00	6.25	34
64C7C1	1	4	5	8	34	2.00	6.80	42
6a7527	1	2	3	9	76	4.50	25.33	85
6C8489	1	5	6	17	119	3.40	19.83	136
6DA768	1	5	6	8	87	1.60	14.50	95
77E07B	1	2	3	5	82	2.50	27.33	87
7aaa97	1	4	5	18	60	4.50	12.00	78
7Ac26E	1	5	6	13	209	2.60	34.83	222
7bb4aa	1	5	6	11	54	2.20	9.00	65
7d2c6a	1	3	4	8	158	2.67	39.50	166

7E2A17	1	5	6	12	208	2.40	34.67	220
80758E	2	8	10	16	111	2.00	11.10	127
81086B	2	7	9	19	324	2.71	36.00	343
83F325	1	3	4	8	167	2.67	41.75	175
F7B78	1	7	8	11	138	1.57	17.25	149

Table G.1 Raw Data from the Organizational Task Study

VITA

Name: Christopher Ronald King

Address: 2727 San Felipe
College Station, TX 77845

Email Address: crking@geodatapub.com

Education: B.S. Computer Science, Texas A&M University, 1991

B.A., Chemistry, Texas A&M University, 1991

M.S., Computer Science, Texas A&M University, 2011