ROCHESTER INSTITUTE OF TECHNOLOGY

A Thesis Submitted to the Faculty of The College of Imaging Arts and Sciences in Candidacy for the Degree of MASTER OF FINE ARTS

From Computer to Video

by

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Table of Contents

PREFACE	iv
INTRODUCTION	vi
ORGANIZATIONAL FLOWCHART	viii
PROJECT MANAGEMENT Create Timeline Gather Information- Review of Literature	1
ASSESS NEEDS Define Scope and Evaluation Criteria of Project Determine Prototype Needed Analyze Prototype to Determine Equipment Needs Hardware Software	1
VISUAL DESIGN PROCEDURE Determine Design and Planning Criteria Conduct Design Process Accept Problem Analyze Define Ideate Select Implement Retrospective Evaluation	4
DEVELOPMENT/OPERATION Compile and Assemble Animation Sequences Movement Structure Viewing Time Sound Synchronization Convert Animation from Digital to Analog Information	10

EVALUATION
Prototype Editing and Revisions
Determine Project Effectiveness
THESIS PROTOTYPE MODIFICATION
Interactive Design Considerations
Screen Design Revisions
New Information Included
Navigation Design Detail of Navigation Structure
Interactive Evaluation
CONCLUSION
APPENDICES
A. Thesis Statement
B. Thesis Proposal
C. Timetable Proposal
D. Project Organization Flowchart
E. Review of Literature
F. Meeting with Bill McElveney
G. Graphic Design Tips for Video
H. Packaging Design for Prototype
I. Voice-overs and Organizational Structure of Portfolio Showcase
J. Sketches for Screen Design
K. Definition of Terms
L. Bibliography

Preface

Upon completion of my first year of graduate study I began to contemplate the idea of creating a thesis project that would incorporate state-ofthe-art computer technology with a local professional business, such as a graphic design studio. I wanted the thesis research and findings to benefit the professional environment along with providing technical information within the academic setting. With this in mind I began looking for a job in graphic design for the summer. Soon thereafter I began working at a local design firm called *McElveney & Palozzi*. The business was small but growing rapidly. Prior to my arrival, *McElveney & Palozzi* had recently invested in Macintosh computers to aid in design and production. The owners, Bill McElveney and Steve Palozzi, were interested in working with me to find an area that would provide a topic for my research.

While reading computer/design related magazines, books, and annuals, I became aware of the interest and on-going research of computer graphics technology; such as, multimedia, interactivity, desktop video, hybrid imagery and computer animation. As I began to look at the spectrum of computer related graphics technology, I realized that narrowing down a topic would be my first challenge in beginning the thesis. Fortunately, I had already decided to develop a project that would incorporate these new areas of computer technology with an existing businesssuch as *McElveney and Palozzi*. The documentation would provide research for the Computer Graphic Design field, as well as being a source of reference for students or faculty in the future. The finished thesis presentation would be an actual piece that *McElveney & Palozzi* could use and benefit from.

After much research and exploration I reached a decision on the thesis topic. Its purpose would be to incorporate computer animation with video technology. A series of animations would be created on the computer which would then be recorded to an analog storage device-NTSC video tape. *McElveney & Palozzi* would be the subject of these animation sequences. Since the design studio's promotional material was rather out of date and did not showcase their most recent work, I decided to develop an electronic portfolio for the business. It would be a computer based "show and tell" of their work. The presentation would be recorded to videotape for distribution to prospective clients.

After arriving at this concept, I began to research various topics; such as, self-promotion, portfolio presentation, desktop video, computer animation, and interactive design. Unfortunately, up until that point my knowledge of video technology consisted of being able to turn on the VCR and view movies. That was soon to change. I was able to take a class on the subject which helped to give me an understanding of how video signals are created, recorded and displayed.

During the course of my inquiry the original thesis proposal was slightly modified to include an interactive electronic portfolio along with the videotape. Given the limitations of the equipment on hand, the quality of the videotape was not considered professional and therefore functioned as a sketch or comp for a future presentation. However, the interactive project's quality was acceptable for use in a professional environment.

I have concluded that electronic computer-oriented self-promotion is an effective way to advertise a business' services. Surely as multimedia technology progresses we will see more promotions of small business in the graphic arts on video, computer and CD ROM. Perhaps these small businesses will be able to create and produce the presentations in their own studio on their own equipment.

I would like to thank my thesis committee-Robert Keough and Nancy Ciolek - for their guidance, suggestions and support in this project.

Introduction

Not being taken for granted is the point of any type of self-promotion. Could computer graphics technology and video technology be the combination that would create a unique way to add that creative spark to a business' promotion of their service and product? Certainly, multimedia and desktop video are getting people's attention. It is the future of communication design.

The use of video and computer graphics technology in advertising is growing at an incredible pace. Effects of this can be found in business presentations of today. No longer is a simple slide show enough. Soon, incorporating live action into presentations is going to be a must. It stands to reason that businesses, especially those who use computers as design tools, would promote themselves in a way that incorporates this exciting and attention-getting technology. The use of computer and video technology incorporated into a design studio's portfolio speaks of a business that is investigating the outer realms of graphic design, as opposed to doing just what's expected.

Video has a very broad viewing range. It is a relatively low-cost way to distribute information and it is not dependent on the computer equipment of the viewer. Video can be edited, sound and other graphics can be added without affecting the "memory" needed to store it. Unfortunately, as with any new technology there exists possible limitations. For instance, a presentation viewed on a television does not have the navigational freedom that an interactive presentation on a computer has. The viewer is not allowed to navigate themselves throughout the information nor are they able to slow it down or speed it up. This issue provides problems for the designer creating the presentation. One must design the project with adequate viewing time without the presentation dragging or becoming boring.

Another factor to consider is resolution. If there is a significant loss of resolution in the videotape presentation, then video may not be a good solution for electronic portfolios. Much of this issue is dependent on the quality of the equipment that is used in the translation of digital information to an analog signal. Since the work being featured in this thesis is in the field of graphic design, the graphics need to be clearly defined, giving the viewer the best possible impression of the business's work.

This thesis is an experiment to determine whether or not the quality of a computer presentation recorded to videotape is professionally acceptable as a form of self-promotion. It will take into consideration the quality of the available equipment that will be used for the project. As listed there are certain assumptions that have been made that support using video as a promotion media, as are there limitations. Based on an electronic portfolio for the local graphic design studio *McElveney & Palozzi*, this thesis will determine the advantages and limitations in using video output in conjunction with computer generated work. In addition to the videotape an interactive project was produced for comparison.

The following chart was created to provide a visual organizational picture of how the thesis prototype was developed once the initial concept had been determined. The flowchart was derived from a previous chart created by Dr. Charles M. Plummer of the Simulations Systems Laboratory of Rochester Institute of Technology. The subject matter, categories and divisions have been altered to apply to this thesis.



Project Management

CREATE TIMELINE

Once my committee had been chosen, I began a timeline in order to give myself some direction and to keep my time organized. This helped me to plan ahead and be aware of what tasks needed to be done in order to finish the prototype on time. I was able to follow the timeline somewhat once the project began; however, there were factors that I had not made time allowances for that continued to surface. SEE APPENDIX C.

GATHER INFORMATION: (Review of Related Literature)

I began working on the project by first reviewing related literature. Various topics included: self-promotion, portfolio organization, computer animation, video, digital to analog conversion and interactivity. Magazines, books and video presentations were my main sources of inquiry. The research helped me to formulate specific ideas and goals that I felt should be accomplished in the project. SEE APPENDIX E.

Assess Needs

DETERMINE SCOPE AND EVALUATION CRITERIA OF PROJECT

In order for a business to promote themselves, they must determine how they wish to be viewed by their audience or clients. The scope of this project therefore was to create an informative and entertaining computer animation presentation that would be recorded to NTSC videotape as the final output for promotion. The video prototype functioned as an animated portfolio of *McElveney & Palozzi's* work. The presentation provided color picture information, which is essential in showcasing a design studio's portfolio. The prototype also functioned as an example of the technical process of creating a computer generated work and transferring it to video, as well as aiding future students through the documentation of the processes involved. The evaluation criteria for the project was developed first by determining the needs of the business, its services and its current and prospective clients. I asked Mr. McElveney to describe how he would want to be viewed by his clients, competitors and the public in general. Based on his response concerning the forementioned questions, we concluded that the overall appearance of the presentation needed to be: simple, professional, polished, sophisticated, communicative and creative. These guidelines became the criteria by which the success of the project was evaluated from a visual design and technical standpoint. SEE APPENDIX F

DETERMINE PROTOTYPE NEEDED

The prototype was created on a Macintosh computer using various types of software in order to achieve a professional presentation. Once the computer animation sequence was completed, the digital information was sent as a composite analog signal to a video recording device. The resulting NTSC videotape showcased a wide variety of *McElveney & Palozzi's* work.

Individual categories were needed to feature specific examples of the studio's work. The examples had to be scanned into the computer from original works or slides. Since the images shown were representing the studio's work, the images had to be very legible, true to original color and shown in an environment that did not overpower the graphics. With these guidelines in mind I focused on the content of the presentation and soon determined that the video would be a series of moving graphics, fading and dissolving transitions between frames, including music and possibly a voice-over.

ANALYZE PROJECT TO DETERMINE EQUIPMENT NEEDS

Hardware

The hardware utilized in my thesis project was primarily a Macintosh IIsi with 5MB of RAM and an 80 MB hard disk. The Macintosh IIsi comes with an external microphone that was used to record the music selections and voice-overs. A removable drive with Syquest 44MB cartridges was nec-

essary in order to view the project on other Macintosh systems since the documents became quite large after completion (20 MB). The cartridges were also used to store scanned images and converted PICT files for later importing into the MacroMind Director document.

Other hardware necessary included a color flatbed scanner and a slide scanner. Some of the portfolio examples were scanned on the flatbed scanner, however, most of the images were in slide form so they had to be digitized via slide scanner. The scans were all saved at 72 dots per inch resolution. Since most monitors do not display a higher resolution and print-outs were not needed, scanning at a higher dpi was not necessary. The low scanning resolution kept the files relatively small and helped to conserve space within the presentation.

A Macintosh IIfx with a Mass ColorSpace II video board was used to record the animation sequences to videotape. The video board converted the digital information to an analog signal that was sent to a Sony NTSC videotape recording device. A Sony NTSC monitor was also used in order to view the presentation as it was being recorded.

Software

MacroMind Director, Adobe Photoshop, Sound Edit, Aldus Freehand, and QuarkXPress were the software applications that were used for the production and completion of the thesis project.

MacroMind Director allowed me to have the control of multimedia production on my desktop. The program seemed best suited to take advantage of the multimedia capabilities inherent in the hardware and system software of the Macintosh environment. Because Director had the features necessary to create desktop video, I was able to create and record animated movies onto videotape to complete the proposed requirements for the thesis. Through the use of graphics, animation, and synchronized sound effects, MacroMind Director allowed me to communicate ideas and concepts in ways not possible in other media. Another software program used in the development of the project was Adobe Photoshop. Once the portfolio images had been scanned they were opened in PhotoShop, sized to fit the MacroMind presentation, cropped and retouched if necessary, their color palette changed to NTSC video, and then saved as PICT files to later be imported into Director. The background texture was also created in PhotoShop, as well as, all of the text in the presentation. Since text created in MacroMind has a jagged appearance, all of the text had to be anti-aliased in PhotoShop and then applied to the various screen designs.

The incorporation of sound helped add an extra dimension to the presentation. SoundEdit was used to import and edit the sound tracks throughout the project. Both the music and the voice-overs were recorded at a 22 to 1 compression ratio for maximum impact and clarity. The recordings were also saved as PICT files for importing into Director.

Packaging designs for the project were created using Aldus FreeHand. In order for the project to be seen as an overall cohesive promotional piece, these designs were completed to bring unity to the separate types of presentation media. Box design and labels were created for the videotape presentation. The packaging ensemble created in FreeHand was developed to relate to the screen designs found in the presentations. SEE APPENDIX H.

QuarkXpress was the page-layout software used for the word processing and layout of the written documentation. A template was designed and applied to each page to unify the presentation.

Visual Design Procedure

DEVELOP DESIGN AND PLANNING CRITERIA

Although print is the medium which comes to mind when we hear the words "graphic design", designers are being required more and more to design multimedia, video and computer presentations. A video or computer screen is analogous to a four-color printed page; hence, the design principals that work on the page also apply to the screen. Illegible type, conflicting color combinations, disorganized layout and poorly reproduced images dramatically affect the impact of the presentation screen as much as they do a magazine page.

This area of the thesis focused on the manipulation of graphic elements to create a visual environment through which to view the portfolio examples. The graphic design of the presentation followed the initial guidelines of simple, professional, creative, and communicative. I became familiar with the following design process in a Visual Semiotics class and felt it would be a clear, logical way to reach the visual design requirements of the project.

CONDUCT DESIGN PROCESS

Identify Problem:

As previously stated, the purpose of this project was to explore video input/output in the Macintosh environment. In order for the project to be successful, an interesting animated movie was required for its final destination to videotape. The graphic design for the screen layout was the first area of the project that needed to be defined.

Research & Analyze:

Color, typography, graphics, texture, movement, music and voice-over material were all elements of the animation that had important roles. Analyzing each of these elements in context to what effect I wanted to achieve later contributed in narrowing down my ideas for the visual arrangement of the project. For example, the overall screen design needed to complement the featured work without over-powering it; therefore, a medium grey was chosen for the background environment. Because the elements of movement and sound were not a part of the primary visual design process, they will be addressed later in context to assembling the animation. Seeing actual computer animations on VHS videotape was also an important part of my research. I ordered MacroMind Director's information kit to see the quality of animation and presentation effects that could be achieved on tape. The package I received came with printed information, as well as, a videotape and two CD ROMS. The information was very helpful and the professional quality of the tape was extremely encouraging.

Define:

Defining my objectives, goals and criteria for the project related strongly to the process of identifying the design problem. The process of definition had already been accomplished in the previous sections.

Ideate:

At this point in the design process sketches of various screen designs were created. My goal was to organize the given information into a presentation that was visually legible, concise and logical without being static or boring. I aimed for a corporate feeling or mood through various combinations of color and typography, as well as combinations of graphic elements and textures. SEE APPENDIX K.

Select:

The selection process dealt with all of the visual elements of the project. It included the placement and size of information, the fonts used, the colors of text, graphics and background and the overall style of the screen design. This part of the design process also involved the selection of the portfolio images that were to be featured in the presentation.

THE IMAGES

The portfolio images were chosen based on the following standards: their reproduction quality, their size (if not reproduced on slide) and primarily which images best represented the studio's current work. First, Mr. McElveney picked out the images he thought best represented their work, then the previously mentioned criteria were applied which further narrowed down the list.

After determining which images would be featured, I decided to create individual categories to distinguish between the studio's design services and capabilities. The perspective categories were as follows; Graphic Design, Packaging Design, Corporate Graphics, Publication Design and Illustration.

THE MAIN SCREEN DESIGN

Because I was working on a 13" monitor, the entire screen was used for the presentation in order to make the portfolio images as large as possible within the context of their viewing environment. The aspect ratio of a computer screen is different than that of a video monitor. Since I did not have a video monitor available I chose to work within the format of the computer screen and modify it later. Because I was aware that some cropping would occur, I made sure to stay within the "safe area" - the center 80% of the screen.

It was essential to maintain a cohesive project while giving the viewer enough information to differentiate between separate groups of data. Consequently, the main screen design chosen was versatile enough to allow slight visual modifications in order to distinguish between informational categories, while maintaining its overall visual consistency.

The placement of the image viewing area was approximately the right two-thirds of the screen. The other one-third on the left was used for the visual graphics and the heading names for each category. A color-coded bar for each category was placed at the bottom of the screen for visual interest, as well as to remind the viewer of what section was being featured. The diagram on the following page illustrates the layout and color relationship of the graphics:



COLOR

The overall color scheme of the presentation was achieved by contrasting a medium cool grey background with accents of bold colors, such as red, blue, purple, and teal. The bold colors were used selectively to indicate categories while not competing with or detracting from the portfolio images.

TYPE

The type styles chosen for the project were Folio Bold and Palatino Regular. Folio Bold was used for the upper headings on each screen. It was chosen for its legibility- plain, unobtrusive, and reads well on a small scale. Palatino was used to list the categories on the Main Showcase screen. This type face provided an appealing contrast against the sans serif font, Folio Bold.

The color of the type was white with a slight black shadow behind them. This created the necessary contrast to aid to their legibility on the screen.

Implement:

During this stage of the design process the project began to come alive. Once all of the graphics and screen designs had been selected it was time to bring the information together. The screen designs were created in Adobe PhotoShop by combining the created background texture, the color graphics and the anti-aliased text. Once the screen designs were completed they were saved as PICT files and later imported into MacroMind Director.

A color flatbed scanner and a slide scanner were used to digitize the portfolio images. Because the images were not used for printing purposes it was possible to scan them in at a low resolution of 75 dpi. Most monitors do not have a display resolution greater than 72 dpi. This was an advantage since the project would consist of many color images. However, even at such a low resolution, the images still required a great deal of storage space.

Once the images were in digital form, they were opened in PhotoShop

and resized to fit the screen layout. The images often required retouching to achieve the best color and clarity. After all of the revisions were made, the photos were converted to the NTSC palette and saved as PICT files.

At this point a MacroMind Director file was created and all of the screen designs were imported.



Having the background screen designs in place, the portfolio images were imported and categorized in their perspective section. The images were then "framed" with a thin black rule and a black drop shadow was added to visually "lift" the images off the screen.

Retrospective Evaluation:

The colors combined with the graphics, text and their placement in the screen layout created a very simple, clear and legible design. The screens had a corporate "look" that contributed to the professional appearance I was trying to achieve. Based on the feedback I received, I felt the visual design and organization of the project had met the previous-ly mentioned evaluation criteria. Therefore, it was time to assemble the "frames" into the animation sequences for recording to videotape.

Development / Operation

ASSEMBLE INFORMATION INTO ANIMATION SEQUENCES

As mentioned earlier, multimedia and video require motion and sound for effective presentations. These two elements are foreign to the printed page and "graphic design". Although skilled graphic designers excel in the print world, the same professionals may fail in their efforts at video and multimedia. As a designer it was a challenge for me to incorporate the added dimensions of sound and movement into this project. Elements such as; viewing time, music selection, voice-overs, synchronization of sound and picture, and movement were very important to the overall appearance and success of the prototype. At this point I had to once again focus on the original design objectives- simple, professional, polished, sophisticated, communicative and creative. With these ideas in mind I began to assemble the animation sequences.

Movement:

Once all of the graphics had been placed in their proper "frame", I began to script the frames together to create a continuous animation sequence. I was aware that if the animations were relatively simple the audience would be more likely to focus on the message rather than be distracted by a lot of activity on the screen. So I decided to keep it simple. Moving bars and dissolving images were the extent of movement throughout the sequence. The animation of graphics was limited to the purpose of directing the viewers attention to the changing information. The transitions between portfolio graphics primarily consisted of simple dissolves. Offsetting the images helped create a subtle feeling of movement. Other transitions were applied where they were appropriate.

Structure:

The presentation was scripted to open with a menu titled "PORTFOLIO



SHOWCASE" that listed the five categories. The animation then begins playing and features a sequence that highlights which category is to be featured. After each category is completed the animation returns to the previous menu until all portfolio sections and images are seen.

As I was completing the scripting for the electronic portfolio, I began working on ideas for an animated

introduction to the presentation. I sketched storyboards to help organize and develop the animation sequences. Once completed the introduction consisted of moving graphics and dissolve transitions while listing the design firm's services. The words Corporate Graphics, Packaging Design, Illustration, Publication Design and Graphic Design were featured along with scanned images of the studio's work dissolving in and out of



the background. The presentation begins with the *McElveney & Palozzi* logo in color on a white background. An upbeat music sequence (See..

Sound) accompanies the introduction animation which leads to the PORT-FOLIO SHOWCASE section. The entire presentation consists of three separate parts that were linked (scripted) together to create one continuous eight minute animation.

	NTSC FOR UIDEO	
3 items	33,062K in disk	7,592K available
	SEQUENCE 2	্র SEQUENCE 3

Viewing Time:

Unfortunately, when designing for video, the designer has to predict how long it takes an individual to process given information. As expected this time span is not consistent among most people. Therefore, the designer must determine how long to show the information without moving on too soon, resulting in not allowing time for the audience to register the data. Leaving it on the screen for too long, however, gives the audience time to lose interest or become distracted. After testing the viewing time on a number of people, I chose to give the portfolio images four seconds of "air" time before moving on to the next image or category. Since there was no text accompanying the images four seconds resulted in ample viewing time.

Sound:

The voice-over material was taken from a previously designed brochure promoting *McElveney & Palozzi's* services. Because of time restraints I was unable to have someone else read the information for recording purposes. I recorded my own voice using an external microphone connected to my computer. The sound was recorded and edited using SoundEdit. SEE APPENDIX I.

I chose a music sequence from the group Tangerine Dream for the introduction animation. The segment was upbeat and very contemporary. The

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music was recorded using the same process as the voice-overs. All of the sound was recorded at a 22 to 1 compression ratio for maximum impact and clarity. The sounds were saved as PICT files for later importing into Director.

Synchronization:

The voice-overs were scripted to begin when the animation reached the individual category viewing environment. As the portfolio examples are being shown, the voice-over continues until the last image is featured. Synchronizing the voice-overs and music segments to begin on time and end on time was quite challenging especially since the playing speed varied from computer to computer.

Finally the animation was complete. At this point I saved a copy of the completed eight minute sequence and began to further modify the original project for video. By reading "Graphic Design Tips for Video", I was able to revise the presentation to make it "video-ready". One of the major revisions made was changing the format to NTSC video which required quite of bit of ingenuity. It was suggested to use two monitors while designing for video- a high-quality RGB monitor and a generic TV-style monitor. This helps to avoid any surprises concerning cropping, color changes and screen flicker. Unfortunately, I did not have access to a computer that was connected to a video monitor until it was time to record the animation to tape. However, I continued to modify the project in preparation for transfer. SEE APPENDIX G.

Color was another important issue. Fortunately, I was able to convert the current system palette to the NTSC color palette in Director without too many problems. Minor changes were made since the NTSC color palette is much more muted and subdued than the system palette of an RGB monitor. Once converted to the NTSC palette, the bold blues and reds turned pastel blue and washed-out pink. Bold saturated hues are not available in the NTSC palette. I was curious to see how this would affect the overall "look" of the presentation.

Single line horizontal rules also had to be changed. The rules that outlined the images were doubled on the top and bottom to avoid screen flicker. The completed animation was then placed on a 44 MB Syquest cartridge- requiring 25 MB of storage space. Once all the changes were made that I could see as being potential problems, I set up an appointment with Russ Krauss to record the animation. I was anxious to finally see the project on tape.

RECORD COMPLETED ANIMATION TO VIDEOTAPE

Russ Krauss along with one of his video students helped me to set up and connect the equipment in the American Video Institute department at RIT. I was responsible for bringing the Syquest cartridge with the animation and the proper software loaded on it, as well as a VHS tape to record onto. The equipment configuration is shown in the following diagram:



Although the Macintosh High-Resolution RGB Monitor displays defined color graphics, the RGB signal going to the monitor cannot be displayed on a regular television or recorded to videotape. This is where the video card was used to convert the signals from RGB to NTSC composite. At this point, digital information became analog information. The resulting analog composite signal consists of all color information and audio information combined. After the converter does its job, the animation can be recorded real-time on a videotape recorder. While both monitors, NTSC and RGB, produce their images by scanning the phosphors in the front of the picture tube with a horizontal stream of electrons, an NTSC video display is made of lines that are displayed in two sets, called fields, that alternate from one to the other; each field includes only every other line of the full display. These alternating fields are displayed at a rate of 30 times per second. This display technique is called interlacing. RGB display is a non-interlaced display. A non-interlaced display scans each line consecutively from top to bottom until all the lines have been scanned, then starts again from top to bottom.

Unattractive "screen flicker" is caused by the differences in the design of the two displays. When an RGB graphic has a horizontal line that is only one pixel wide, the interlaced NTSC screen causes the image to flicker each time it scans the line. The flicker is not visible in an RGB monitor because it displays each line with every scan of the monitor's screen. The scan rate is higher and the lines are scanned in a sequential order.

Since I was able to see the animation on a NTSC display as it was being recorded, I could see problems such as- flickering, chroma crawl, cropping, and audio sync timing.

Evaluation

PROTOTYPE EDITING AND REVISIONS

Three recording sessions were needed until the final prototype was finished. While it was exciting to finally see the presentation on tape, I also got a few surprises. For instance, each time the tape was played on a different television, the cropping varied slightly. I was informed that this issue was a typical problem concerning NTSC video. Overall the NTSC color palette worked well, but the red hues bled horizontally into other graphics (chroma crawl). I attempted to adjust all of the line weights as previously mentioned to reduce the amount of flicker on the screen, but, these revisions did not all together eliminate it. Another drawback of the video presentation was the waiting time between each of the three animation segments. Because of limitations related to the recording equipment, I was unable to pause the recording process and then continue without an obvious screen flicker. Consequently, there remained rather long periods of time in two areas on the tape where the computer was reloading the next animation sequence.

DETERMINE PROJECT EFFECTIVENESS

Overall the presentation was a good indication of perhaps an animated storyboard for a more refined animated movie. The idea, design and concept worked well; however, there existed limitations in the recording quality of the final videotape. Nonetheless, the quality of the tape presentation was acceptable for my thesis show which helped me to meet the requirements for the thesis project. The quality was not, however, acceptable for use in a professional environment.

Another issue that I had not considered was the quality degradation that takes place when duplicating videotapes. A master tape must first be produced and then duplicates are created from it. Quality is lost in the duplication process. Since it is not economically feasible to distribute master tapes, lower quality copies are made that unfortunately do not reflect the true quality of the original presentation.

Thesis Prototype Modification

During the process of video editing, I realized that the final outcome of the tape was not going to be the professional quality that I had hoped for. I then considered modifying the original thesis objective to include a computer interactive presentation. While providing research on digital to analog recording, I also wanted to produce a presentation that a business could actually utilize.

INTERACTIVE DESIGN CONSIDERATIONS

1) Screen Design Revisions

The *McElveney & Palozzi* logo was added to the color coded bar across the bottom of each screen. The logo was "embossed" in the color of the individual graphic- an effect achieved through the use of filters in Adobe

PhotoShop. The added logo brought consistency throughout the project and functioned as a reminder of the business' name.



The user interface was designed to be simple and cohesive with the overall "look" of the project. The navigational buttons were clearly labeled with their descriptive function listed on them. The FORWARD and PREVIOUS arrows were not listed as such since their shape is self-explanatory. The following graphics are examples of the buttons created for the interactive presentation:



The use of flat color worked well in the video presentation, but I wanted to achieve more of a three-dimensional effect with the graphics of the interactive prototype. I decided to use the navigational buttons as a means to create the 3-D effect I was looking for. The raised or embossed look of the buttons helped them to stand out on the screen making them very legible and easy to access.

2) Utilize Existing Animation

The animated introduction and the portfolio sequence was incorporated into the new interactive presentation. Fortunately, I had previously saved a version of the full-sized computer screen animation before the NTSC palette and format changes were done. The animated introduction was used in its original form; however, the PORTFOLIO SHOWCASE was changed from a continuous animation to a series of frames scripted together by buttons.

3) New Information Included

In addition to the PORTFOLIO SHOWCASE segment of the presenta-

tion I included two new categories of information. An ELECTRONIC PREPRESS section was added to give the user a brief overview of the studio's prepress capabilities and equipment. The second new category was the LIST OF CLIENTS section. SEE... Detail of Navigational Structure.



4) Navigation Design

One of the primary advantages of an interactive presentation is the freedom of navigation the user possesses. A navigation system must be cleverly designed to give the user alternative pathways of accessing information, as well as being logical in structure as to not confuse the user. I designed a simple navigational structure for the project consisting of an animated introduction leading to a menu that lists three categories. Each category has a navigation structure of its own. Once the user decides to leave the presentation, a brief animation sequence of presentation credits is activated.

5) Detail of Navigational Structure

The project was arranged as follows: First, the INTRODUCTION animation with accompanying music is played, then the MAIN MENU screen appears. The user is allowed to select either PORTFOLIO SHOWCASE, ELECTRONIC PREPRESS, LIST OF CLIENTS or QUIT as shown in the branching diagram below.



If the viewer selects PORTFOLIO SHOWCASE another menu is provided with the various design categories listed as buttons. Upon selecting a category by clicking on the appropriate button, a brief animation is played which leads to the first card of that section. The opening screen of each section contains text about the business' related expertise in that area. The information given is the material that was previously used as the voice-over in the video. Each screen contains FORWARD and PREVI-OUS arrows that function as buttons allowing the user to browse through the work at his or her own pace. Another button called PORTFOLIO SHOWCASE MENU is on each screen in order to return the user back to the PORTFOLIO SHOWCASE category menu. The PORTFOLIO SHOW-CASE MENU lists the category buttons and a button called MAIN MENU which allows the user to return to the original menu screen.

Upon returning to the MAIN MENU screen, the user has the choice to select ELECTRONIC PREPRESS as it is listed after PORTFOLIO SHOW-CASE or LIST OF CLIENTS listed last. The ELECTRONIC PREPRESS section was designed to help identify the company as a business that incorporates electronic technology into their design processes and philosophy. The navigation orientation in this category goes from one screen of text to another screen with individual buttons for HARDWARE and SOFT-WARE. The HARDWARE section reveals a list of the company's computer equipment, such as; the kind of computers used, the number of work-stations available, and other support equipment like scanners and printers. I added images to relate to the text by taking pictures at the studio of the equipment and the surroundings. The SOFTWARE section lists the software applications the company uses. In both the HARDWARE and SOFTWARE sections there is a button allowing the user to return to the MAIN MENU screen.

The final category listed on the MAIN MENU screen is LIST OF

CLIENTS. This section contains a short animation sequence revealing the logos of McElveney & Palozzi's current clients. I felt that it was important to show the logos instead of only listing them in text form because the graphic images are what most people are familiar with and they provide more interest. The last screen of the animation also contains a return to the MAIN MENU button.



Once the user has completed the entire presentation or enough for their interest, they are allowed to leave the presentation by selecting the QUIT button. As stated earlier, when the QUIT button is used it activates a short animation sequence of presentation credits.

INTERACTIVE EVALUATION

The finished interactive prototype was quite effective. The images were very crisp, sharp, and true to color on the RGB display, giving the presentation the polished "corporate" look I wanted to achieve. The bold saturated colors remained very strong on the computer, in contrast to the washed-out hues of the NTSC video presentation.

Because the quality of the interactive prototype was acceptable for use in a professional environment, it enabled *McElveney & Palozzi* to show the presentation in their studio. The prototype was seen by current clients such as; Kodak, Xerox, Comstock and others. The response to the project has been very encouraging and *McElveney & Palozzi's* clients have been impressed with the studio's involvement with this creative new technology.

Also, while a prospective employee was viewing the demonstration in the *McElveney & Palozzi* studio, she suggested that it would be beneficial if more design studios had interactive portfolio presentations enabling students to come in and learn more about the business and its specific services. She was a recent graduate of Rochester Institute of Technology.

Conclusion

To summarize, this project was developed in several stages after the initial proposal was determined. Two separate prototypes were producedone video and one computer interactive. Although their subject matter was the same, the technical development of each project was quite different. Each project required its own set of design standards that related to the medium through which it would be viewed. For example, when creating computer graphics for video tape, one must take into consideration elements such as; synchronization of movement and sound, display cropping, NTSC color shifts, viewing time, and the quality of equipment used for the transfer process. Computer interactive presentations also require the designer to consider factors like movement and sound; however, elements such as navigational structure and human interface design add new dimensions to the words "problem solving" in design.

As a result of my research, I have concluded that the success of computer generated graphics recorded on videotape has largely to do with the hardware and software used in the conversion, recording and playback processes of the presentation. Video is a very popular and powerful communication tool. If design studios have the equipment required to produce high-quality video, a self-promotion video would have compelling results. However, since most design studios do not possess high-end video systems, their Macs may better be put to use by designing promotional interactive presentations.

Overall, I think that this project was a success. Although the video prototype was not professional quality, the interactive presentation has been utilized in the professional environment and the results have been very encouraging. As more design studios incorporate CD ROM for storing their images, I believe there will be a greater demand for designers to create computer generated environments in which to view the business' work. Once these electronic portfolios are created, the business can tailor the presentation for video or let it remain in the computer realm depending on the individual needs of the studio. The development and result of this thesis has contributed greatly to my understanding and knowledge of computer and video technology. I have had the opportunity to provide technical research and exploration for both the academic and professional environments. It has been a very challenging and rewarding endeavor.

APPENDIX A

Thesis Statement

Many businesses spend millions of dollars on ads, brochures and packaging that basically goes unnoticed. They lack that creative sp**a**rk that promotes their product or service and, unfortunately, they're taken for granted.

The point of any type of self-promotion is to be noticed. Could computer technology and video technology be the combination that would create **a** unique way to add that creative spark to a business' promotion of their service or product? The use of computer and video technology incorporated into a design studio's portfolio speaks of a business that is investigating the outer realms of design.

This thesis is an experiment to determine whether or not the quality of a computer generated presentation recorded to videotape is professionally acceptable as a form of self-promotion. I have developed two seperate promotion pieces in MacroMind Director. One project was developed as an animation sequence which was then recorded to videotape, the other was created as an interactive project which would be viewed on a computer.

APPENDIX B

Thesis Proposal for the Master of Fine Arts Degree College of Fine and Applied Arts Rochester Institute of Technology

PROPOSED TITLE: From Computer to Video

SUBMITTED BY: Michelle Masters

DATE: September 25, 1992

THESIS COMMITTEE:

Bob Keough
Russ Kraus
Nancy Ciolek
Bill McElveney

The purpose of this thesis is to explore the possibilities of video output with various software applications on the Macintosh computer. I will research and report on the advantages and limitations of using video output in conjunction with computer generated work, such as animation sequences and /or stand-alone projects.

This thesis will supply technical data as well as computer generated illustrations on the process of exporting digital sequences and recording them to an analog storage device. The thesis will demonstrate the effectiveness on video as a means of output for many computer graphic design works. This thesis will provide research and information that will further integrate video processes into the computer graphics design program.

Michelle Masters

APPENDIX C

TIMETABLE PROPOSAL

WEEK	DATE	TASKS
1	Dec. 2	Define Nature of the Project Time Line
2	Dec. 9	Work on Project FlowChart Begin Scanning Logos
3	Dec. 16	Finish Research Work on Screen Design
4	Jan. 6	Screen Design Revisions Create Storyboard for Project
5	Jan. 13	Chapters 1 & 2 First Draft Finish Storyboard and Gather Data
6	Jan. 20	Chapters 1 & 2 Revisions Import Images
7	Jan. 27	Import Text Design Revisions
8	Feb. 3	Continue Revisions Text, Layout and Imagery
9	Feb. 10	Update Journal Thesis Update
10	Feb. 17	Continue Project Revisions
11	March 9	Begin Procedure Documentation Have Text Available for Voice-Over
12	March 16	Project Revisions Update Journal
13	March 23	Export Project to Videotape Continue Documentation
14	March 30	Edit Videotape for Presentation Add Voice-Over
15	April 6	Project Evaluation and Recommendations Draft of Documentation
16	April 13	Prepare Project and Written Report

APPENDIX D

PROJECT ORGANIZATION FLOWCHART



APPENDIX E

REVIEW OF RELATED LITERATURE

Macromedia Video

A brief overview of Macromedia products, such as; MacroMind Director, Swivel 3-D, was given by professionals in the design and advertising field. The individuals spoke on how their business used the software for various presentations. They also mentioned how important the first impression is to a client. Businesses will often use MacroMind Director to give perspective clients an overview of the agency by showing examples of their work, the kind of people on staff, and their credentials in their particular category. The clients find the presentations interesting and exciting.

The presentations are designed to entertain the audience, leave them with a good feeling and with the impression that they have learned alot more information about the business. By incorporating this type of technology, it shows that the business has many points of view and is multifaceted.

Editorial: Self-Promotion

This article addresses the importance of promoting one's business to keep it in the foremost of people's minds. Promotion is not discussed as an option, it is discussed as a must if one wants to achieve in their field. Telephone, direct mail, media advertising, entering award's programs, special events or through multi-media presentations are mentioned as ways to introduce yourself to prospective clients, and remind your current clients of your services.

Graphic Design: Self-promotion Studio Magazine

Promotion is a way of selling design. Not all graphic designers do it, but those who do agree: the results are well worth the time and money spent creating and targeting their self-promotion. This article gives examples of promotional pieces sent out by designers and the kind of results they received from them. Many designers report that promotions have won some new clients, but the promotions are not garranteed to produce miracles. Three benefits were given that derived from self-promotions: They present the designer, account person or rep with the excuse to call a potential client; they make it easier to arrange an appointment with the person you'd like to show your work to; and , if a prospective client requests to see samples of your work, promotions are much more efficient and convenient to send than a portfolio.

Self-promotions should be unique, and should also provide flexibility for the designer to alter and update the work effectively and inexpensively. The promotional piece should successfully showcase completed works. Ric Riordon of the Riordon Design Group states, "if we're in a business where we're telling people to promote, then we have to promote ourselves."

Don't worry Be Funny

HOW Magazine

Bill Dorsev

Mr. Dorsey addresses the difficult dilemmia of how to present your business' image to others in a unique and competitive way without becoming too trendy or inadvertently plagiarizing someone else's work. Designers get used to satisfying the needs of others, but sometimes have difficulty satisfying their own needs. We are not used to being our own client.

Roger E. Murray

Marilyn Weiss

"A self-promotion piece can be, or should be more than just a capabilities brochure:" states Dorsey, "It can be a window to the designer's soul." He believes that it can represent a specific part of a designer's personality- a sense of whimsey, or a dry wit. Many too-serious design pros overlook humor. Creative courage is very important. Designers need to take creative risks- leaps of thought.

Nich Know-How

HOW Magazine

George Harper

This is the age of specialization. Niche marketing is catering to an audience with a very specific interest, rather than a general focus. This article discussed the need for design firms or ad agencies to not only understand what it takes to make it in a specialized market, but also what the market means to its clients and what it means to the agency itself. Targeting small industry groups also means you have to be especially careful to avoid conflict of interest, since all your clients are engaged in the same activity. The is when self-promotion becomes especially vital, since how successfully you accomplish this task can ultimately determine the success or failure of you company. This article gives an example of a successful business that targeted the market of horses. The equine industry is a \$30 billion-a-year business.

Another business featured is Thiel Visual Design. Thiel approaches design with an emphasis on its contribution to a company's bottom line, and its use as an imagebuilding tool. Thiel says, "In short, we emphasize the business point of view rather than tell the readers we can make them look good graphically. After all, it's the business of a design firm to increase customer load, and enhance the perception that potential customers have of the client. To succeed, a design firm has to go beyond that; it must effectively position the firm with its clientele."

Another designer mentioned is Susan Haeger, president of American Design. Haeger was particularly interested in the natural foods market. American Design used a series of brochures to promote itself in the targeted market. The brochures were designed to show a selection of the company's work; show products that have been successfully marketed; demonstrate the diversity of clientele within the natural foods industry; and showcase the capability of American Design.

Investing In the Future

HOW Magazine

Shelia Cosgrove

Investing in the future is an article which focuses on one of England's best known design studios, Walker Pinfold Associates, and how they have promoted themselves in the past. The secret of WPA's success is simple- it treats itself like a client. That way, the finished product is the best that it can be done within budget constraints, and delivered on time. Thirty percent of the company's profits are put back into self-promotion. Both partners see that money as an investment in the future. WPA hired a business manager in Leeds to coordinate promotional activities because they consider it so important. Walker states, "It's all about keeping your name in front of the client without being pushy or overbearing. It's about promoting what you do best."

Friendly Persuasion

HOW Magazine

John Tymoski

This is another article concerning how to promote a design business. The featured design studio is the Woodard Group a Boston marketing and communications design firm. The Woodard Group has created a campaign that is friendly, simple and very effective. Woodard believes when your having a good time, you do good work. He tries to convey this feeling through his promotions. The copy-writer for the text on the promotions was told to make the text colloquial, make it down to earth, matter-of-fact and fun. Their portfolio is very diverse and has provided many new opportunities for work. The article also refers to their budgeting practices in promotion and the way they change programs (or campaigns) when the previous one begins to wind down.

Will the Real Multimedia Please Stand Up?

This article discusses the revolution in the technology of multimedia on the Macintosh and other systems. The various platforms discussed all have at least one of the critical elements for a successful multimedia platform, but not all. QuickTime is also mentioned and its place in the digital video progression. Compression is another issue when discussing QuickTime that is addressed. The pros and cons of many platforms are considered, but the Mac represents a larger installed base of digital video technology that any other platform. The Philips and Sony CD-I (Compact Disc-Interactive) is described and it's projected effects on the market, as well as, the Commodore Dynamic Total Vision , a home version multimedia player made by Commodore. Multimedia is said to be arriving in pieces, but will soon make a tremendous impact on the industry and among the large publishing and broadcasting firms.

QuickTime Your First Time

David Pogue

Tony Bove and Cheryl Rhodes

QuickTime's impact in digital video is presented at length including what it takes to get started; money, time, patience and lots of the latest computer and video equipment. Video input boards, compression techniques, and editing software are contrasted and compared with other products in their categories. VideoShop, Adobe Premiere, and VideoSpigot are examined in their video input or digitizing capabilities, their editing techniques and their 'save as' options. Pogue predicts that within a couple of years, analog (tape) machines may disappear from the loop entirely: the quality of digital movies on the Mac will be so high that they can be used as actual broadcast material.

Boise Cascade Battles Forest Fires with Interactive Videos Susan Prince

Avideo production specialist at Boise Cascade Corp.'s Deridder Mill training center media department used AT&T Graphics Software Labs' rio 2D design package and Truevision's SlideShow to develop an arson education slide program. The presentation was used in area schools and civic groups to inform and educate the public on arson related fires. The media department has added multimedia services to its existing conventional video training tapes, video graphics, animation,35mm presentation slides, overheads, and desktop publishing. They frequently use a Truevision Targa card to output slides and send video graphics to tape. About 75 percent of the mill's electronic graphics are output to video tape. Their recent training tapes include real-time animation "right out of the computer". The media center plans to upgrade their video systems to recordable laser discs when the technology arrives, until then they continue to experiment with 3d modeling programs that can be animated and sent to video.

MTV Meets the Mac

Marcus Nispel's business, Portfolio Artists, recently became involved in the explosion of professional video editing on the desktop. Nispel worked as a designer in Europe and in the United States and then decided he no longer wanted to design, but direct instead. Portfolio Artists worked with the C C Music Factory on their music video, then later had the opportunity to do two videos in a short amount of time. They wanted to produce a dynamic, futuristic rock opera by combining raw footage and animation sequences. All of the editing was done on the Mac using the Avid editing system. Even end credits were added to keep with the movie-like feeling of the video. Jay Friedkin feels that digital non-linear editing technology provides all the flexibility needed in editing film, and all the copies are first generation (without loss in quality).

Portfolio Power

This article presents views and advice from various professionals in the design field. It gives ideas that are aimed at building a portfolio that will stand out from the crowd. A person or business' portfolio speaks for their abilities as a graphic artist. There is a continuous need to make the maximum impact on perspective clients. The reader is advised to design their portfolio as a whole, as a reflection of one's design ability- the whole portfolio, the whole presentation. It is often necessary to edit your portfolio down to only your best work. Its often better to have a small number of exceptional pieces than a large number of pieces that appear repetitive or mediocre. A good first impression is vital-work needs to be presented in as professional a way as possible. Computer literacy is very important and portfolios on disc are becoming more and more popular because it shows that the person is interested in doing more than just what's expected. Alan Christie finishes the article with this thought, "Your portfolio speaks for you. It shows whether you care about your work, how you think about your work and yourself."

Getting Started in Desktop Video

This article explains the range of desktop video systems and tries to help users make more realistic choices. DTV (desktop video) is enabling users to combine computer images and/or video footage into programs that include sound and present them to a wider audience than can be brought in front of the the computer itself. The reader who is interested in getting started in DTV is advised to define their objectives, their audience, and their own production expertise. Video tape format issues are discussed, as well as, types of desktop video editing. Video editing is divided into three categories: cuts only/assembly editing, A/X editing (utilizing two machines and a computer), and A/B roll editing (requiring at least three video machines and a computer or a controller). These systems are then described at length. A quality control chart is also given with four rules to remember: 1) Always evaluate your work on a video monitor, not a computer monitor-video signals have an inherently low resolution. Don't wait until your graphical elements are edited into your program to determine that there is something you need to change. 2) Do not use over-saturated colors such as bright red, orange, or phosphorescent green. They create unattractive video "noise". 3) Your computer monitor displays the whole image, while video monitors cut off the edges. Leave a safe area (about 10 percent) around all four edges so that no critical information will be lost.

Maryrose Wood

Terry Malloy

Jon Leland

4) Avoid very thin lines (especially single-pixel horizontal lines) and fine grain patterns. They can frequently cause a visible "buzzing" when they are transferred to video.

Still Video: Getting Started in Computer Graphics

A way to import images into the computer other than scanning them is to use a still video camera. The still video camera contains a computer disc onto which the image information is placed. The information can then be read by your computer, and the image electronically cropped, sized, and pasted into your document. A photography system without film or processing. Still video performs image capture by recording the analog image data onto the disc. By using a video capture or "frame-grabber" board in the computer, the image can be digitized from the player and then used throughout various software applications. This tool is extremely valuable for gathering and manipulating photo references for composites or illustrations.

Video Typography on the Mac

Today, high-quality screen text can be created with a high-end personal computer based graphics system. Macintosh-based titling and graphics systems are now major components in many major production facilities. The Mac expanded design capabilities for desktop publishers, and it is now doing the same for video producers. Basic capabilities are not where the Mac excels in video titling, it excels in versatility, image quality, and ease of use. Allain states, "Why offer character generation to your clients, when you could offer them "video typography"?" The software used to create video typography falls into two groups: packages designed for creating video title graphics; programs designed for print graphics, image processing, and animation. FontStudio, from Letraset, allows user to create and edit Postscript type and outline graphics. Any program that supports antialiased Postscript type such as Letraset's ColorStudio and Adobe Photoshop can render these objects as antialiased bitmaps. MacroMind Director is listed as a high quality general purpose 2-D animation program. Director is not marketed to the production profession, but it is still a valuable tool for titling and other animation. Director is a very solid program that belongs in every Mac producer's tool box.

Bola and Comet systems are compared in detail in this article. Antialiasing is then discussed. A user would deal with antialiasing differently depending on how a graphic is used.

Can We Print to Tape Yet?

This article discusses the unique process of getting video from the computer onto tape - a process called print-to-video or print-to-tape. Videotape has long been a part of computer graphics and recently, desktop video. This is because tape is the common medium of video signal storage and exchange. Within the Mac environment, users can simulate expensive on-line editing sessions at their desktops. Any worthwhile printto-tape capability must have provisions for audio recording. A/X rolling is addressed in this article, as well as JPEG rotoscoping- the process wherein the computer grabs a frame of video off tape, adds a logo to the image and changes the colors a bit, and then lays it back onto the tape.

Janet Matey

Chris Allain

Gary Olsen

APPENDIX F

MEETING WITH BILL MCELVENEY

Services provided by McElveney & Palozzi:

Graphic Design, Packaging Design, Corporate Graphics, Computer Illustration, Art Direction, Communication Graphics and Publication Design.

Target Audience for Promotional Material:

Major Corporations, such as: IBM, Westinghouse, Corning Glass, TBS, General Electric, Kodak, Xerox, French's, Gerber Foods, Comstock

Colleges, such as: UCLA, Notre Dame, Northwestern, etc.

Existing clients: Kodak, Xerox, Genessee, Comstock

Desired appearance of promotional piece:

Simple, highly-graphic, professional, polished, sophisticated, communicative and creative

APPENDIX G

GRAPHIC DESIGN TIPS FOR VIDEO

- View your work on an NTSC monitor while you are creating the graphics. You will be able to spot any problems as they are created.

- Stay well within the NTSC "safe zone," which is 85% of the screen size. Graphics inside this area will be displayed on all NTSC monitors. You run the risk of some of your graphics disappearing beyond the edges of an NTSC monitor if you work outside this area.

- In addition to avoiding one-pixel wide horizontal lines, the lines should be at least two pixels wide and have an even number of lines.

-Don't use contrasting colors in adjoining areas. Buffer the contrasting colors with a couple of lines of a neutral intermediate color.

-Instead of pure white, use light shades of gray.

-Use at least 24 point font size for titles.

-If your titles are overlaid over video, use contrasting colors for the titles. If the video image is light, use dark letters, and if the video image is dark, use light letters. Or, avoid the problem completely by displaying your letters on a solid background color, or contrasting drop shadow.

-Don't use dithered patterns, or patterns that have alternating dots or lines. Use solid colors to avoid flicker. For instance, change the desktop pattern to a solid gray if you are displaying or recording the Finder on NTSC video.

-Use the NTSC palette of colors that comes with MacroMind Director for best results.

-Record 24-bit animation frame-per-frame.

-Apply blend and anti-alias ink modifiers when creating text and graphics.

APPENDIX H

PACKAGING DESIGNS FOR PROTOTYPE

These are examples of the packaging designs developed for the presentation of the prototype. The design and layout of the packaging material was completed using Aldus FreeHand. The design was intended to reflect and relate to the screen graphics of the presentation. The packaging was also designed to unify the entire project. Fortunately, the graphics in the prototype were easily applied to the various formats required.



VHS Video Spine Label at 100%

INTERACTIVE PRESENTATION PACKAGING



Syquest Cartridge Cover at 55%

McElveney&Palozzi

Cartridge Spine Label at 100%



Cartridge Label at 100%

APPENDIX I

VOICE-OVERS AND ORGANIZATIONAL STRUCTURE OF PORTFOLIO SHOWCASE ANIMATION SEQUENCE

GRAPHIC DESIGN VOICE-OVER

"With sixty years experience under our collective belt, and an impressive client list, *McElveney & Palozzi* is considered one of upstate New York's top graphic design groups.

When our studio opened, in 1983, we made a commitment to use *teamwork* as a creative tool in producing graphic design that would stand out above the rest. We have succeeded, and have proven ourselves to be *award-winning* designers of logos, identity packages, publications, and product packaging.

Our team prides itself in working hand-in-hand with both large and small businesses alike, in producing the best design solution to every graphic need. We understand how important it is for you to put your best image forward."

IMAGES INCLUDED:

"Graphically Speaking" Poster Xerox Work Force Poster International Printing Week Poster Wastewater Management Poster Hefty Disposable Plates Slick Sheet

PACKAGING DESIGN VOICE-OVER

"Good packaging *identifies* the product. Dynamic design *sells* the product! With so many choices available in today's marketplace, the consumer is likely to choose the most attractive package. If you consider your product to be *the best*, then it makes sense to give it the highest visibility in a competitive sales market setting.

McElveney & Palozzi will work closely with you in producing effective, award-winning packaging, using exciting design while maintaining the *integrity* of your corporate identity.

Our team has handled design projects for Fortune 500 corporations and small businesses alike. As an extra edge, our experience with the printing process ensures accurate preparation of camera-ready art for any size job."

IMAGES INCLUDED:

Orchard Farm Canned Vegetables Orchard Farm Canned Pie Filling Genesse Beer Display Bins Kodak S Series Camera Kodak Weekend Camera Kodak Funsaver 35 Camera "Open Me First" Kodak Special Outfit Camera Kodak Serria Club Video Series

CORPORATE IDENTITY VOICE-OVER

"We believe that logo design is the cornerstone of any corporate identity package. Instant *visual recognition* is a must when you want to attract the attention of the prospective or repeat customer. Tying in the logo to your business stationery, package and promotional material enhances the professional image of your business and portrays your company as forward thinking and contemporary.

McElveney & Palozzi has always been strong in designing logos that reflect the professionalism and credibility your company deserves. We've earned numerous design and printing awards for the identity packages produced in our studio.

Whether you are looking to create a *new* identity, or need to redesign an *old* one, we can work together to give you what you want. Our team will help you with labels, brochures, catalogs, and we'll also supervise jobs through printing."

IMAGES INCLUDED:

RESTORE Stationery Club V.P. Stationery Kirsher and Associates Stationery

IDENTITY SHOWCASE (logomarks)

Colonial Chimney Sweeps Dollars for Doers Eagle Graphics Golden Link Folk Festival Career Development Process Irish Mist Kirsher and Associates Changes, Challenges, Choices Ragtime Logo Rita Rose Photography Simons

PUBLICATION DESIGN VOICE-OVER

"The most *basic* form of graphic communication can be your most valuable tool. Publications spread your message and keep it current. Through direct mail, catalogs, newsletters, and viewbooks, you reach your target audience and sell your product or your ideas. It stands to reason that the better the design of your publication, the more effective it will be.

McElveney & Palozzi has won awards for their design of educational publications, corporate catalogs, and newsletters. We've earned a reputation for neat clean page formats, striking cover design, and accurate preparation of camera-ready art.

If you're looking for a studio to design your catalog, brochure, newsletter, viewbook, or if you want to improve the look of your existing publication, we know we're the *team* that will bring results."

IMAGES INCLUDE:

American Red Cross Annual Report RG&E Brochure Kodak "How to Make Award Winning Pictures" Brochure Xerox Development Planning Binders Xerox Customer reference Guide RG&E Annual Report Monroe Community College Promotional Book

ILLUSTRATION SHOWCASE

Three Children- Graphite Drawing Child in Rocking Chair- Graphite Drawing Red Cross Volunteers- Graphite Drawing Earphones- Line Art Camera- Computer Illustration Camera Exploded View- Computer Illustration Eyeball Technical Diagram- Line Art

APPENDIX J

SKETCHES FOR SCREEN DESIGN











APPENDIX K

DEFINITION OF TERMS

alias- A form of image distortion associated with signal sampling. A common form of aliasing is a stairstepped appearance along diagonal and curved lines.

analog- Varying smoothly and continuously over a range, rather than changing in discrete jumps. For example, the signal recorded on videotape is an analog signal because the signal is continuously varible. The information stored on a Macintosh disk is digital because the information is sotred as discrete binary information.

anti-alias- The electronic process of removing alias artifacts from an image. A visually pleasing transition is achieved when interpolated pixels are created along the edges of the transition between a computer graphic and the video signal onto which it is being overlaid.

animation- A motion sequence generated by recording succesive positions of a graphic.

bandwidth (bit rate)- The information handling capacity of a signal processing channel. For analog signals bandwidth is measured in terms of the frequency response of the channel- higher frequency response relates to higher image resolution. For digital signals, bandwidth is measured in terms of the bit rate (bits per second) that can pass through the channel.

broadcast- The act of transmitting sound or images by radio or television.

capture video- Video wherein a frame is frozen on a computer screen allowing the artist or designer to manipulate- cropping or pasting onto a page layout.

color depth- A measure of the number of colors that artwork can display. Artwork with a color depth of 1-bit can be only two colors; whereas, artwork with a color depth of 8-bits can have up to 256 colors.

computer generated animation- A form of animation which uses highspeed manipulation of computer artwork to create images moving and changing shape.

CD ROM- Compact disk Read Only Memory; data in the form of clip art or graphics distributed by a software publisher.

digital signals- Electronic signals generated by a computer that processes information as numerical values.

Digital Video- A recording process which captures each frame as binary data. The binary data is then stored digitally on some medium. Digital video that is broadcast quality captures each frame at full resolution and allows multiple copies to be made without any loss in quality.

DTV- Desktop Video

electronic portfolio- an electronic representation of a person or group's visual portfolio, wherein, images have been scanned or captured to import into a computer program to organize.

filtering- A process used in both analog and digital image processing to reduce bandwidth.

hardware- The physical components of a computer system.

jaggies- The saw-toothed, stair-stepped quality of a line produced by most computer programs.

noise- Visual distrubance caused by degredation of electronic signals or their sources.

NTSC- National Television Standards Committee, the group that created the current technical television standards used by all video equipment in the US and Japan.

output- Computer results, devices which accept and display the results.

palette- A subset of all the possible colors that the Macintosh can display. Palettes are used to control the colors of artwork on the screen.

Postscript- A complex language of numerical code that links the drawing or type on the computer screen to a Postscript printing device.

resolution- The absolute number of pixels across and down on a display device. This determines the fineness of detail available, much as grain in a photograph.

RGB- Red-green-blue. The primary colors of light and, therefore, of video screens. Also describes a type of high-quality monitor where the siganl for each color is handled as a separate electronic signal.

RAM- Random Access Memory; allows computer to run software, transmit information to the display, download work to the printer, and store and retrieve your files from the ROM.

ROM- Read Only Memory; resides in various components of the computer-sometimes referred to as "firmware"- contains reoccuring operating system instructions.

software- Programs for the operation of the computer.

SMPTE- The standard parameters for time code in the US, set by the Society of Motion PictureTelevision Engineers.

synchronization- The relative postioning of sound and pictures so that they are timed together.

VTR- Video Recording Device.

APPENDIX L

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