Agenda

I. Market Opportunity
II. Market Segments
III. Display Environments
IV. PC Environments
V. Product Features and Evolution
VI. Distribution Strategy
VII. Strategic Partners
Lots of People Make Presentations

• Individuals who make business presentations to others:
  — managers, analysts, engineers, ...
  — professionals, consultants, salespeople, ...
  — almost any ‘knowledgeworkers’

• In smaller companies: presentations to customers and outsiders
  — sales presentations, proposals, progress reports, ...

• In larger companies: presentations to management and insiders
  — project reports, proposals, status reports, staff briefings, ...
  — also customer/sales presentations in the field

• In both sizes of organizations

  ➡️ an individual’s business success can often hinge on the success of the presentation (strong personal motivation)

  ➡️ a dollar value can be put on effective communication
Presentation Graphics Market is Huge

- "Business Presentations:" $5 Billion in 1985, $10 Billion by 1990
- 35mm slides: over 600 million original slides in 1985
- Overheads: over 500 million original transparencies in 1985
  Total: over 1.1 billion presentation slides annually
  —Hope Reports, 1985

- Average presenter makes about 100 slides per year
  (12 monthly presentations of 8 slides each = 96)
  (4 quarterly presentations of 25 slides each = 100)

⇒ Hence, there are—today—over 10 million people in the U.S.
  —who need presentation software enough to buy it
  —who would consider presentation capability a major factor
    when purchasing a personal computer and peripherals
So Far, Market is Small on PC's

- 35mm Slides:
  - over 600 million original slides in 1985
  - only 12% produced using any kind of computer
    (up from 3% in 1983, 1/10 of 1% in 1978)
  - Initial growth mostly in centralized services, not PC’s

- Overhead Transparencies:
  - over 500 million original transparencies in 1985
    (up from 450 million in 1984, 400 million in 1983!)
  - only 1/2 of 1% produced using any kind of computer
  - seldom produced by centralized services

88% of 35mm slides—99% of overheads—are still produced manually (by typing/drawing/lettering/photography)!

WHY DON'T THOSE 10 MILLION PEOPLE USE PC’S?
Presentations Require **Graphics** PC’s

- Previous generations of machines could not do the job:
  - Too much code required, not enough processor or memory
  - Displays could not show a presentation (text or low-res)
  - Peripherals were inadequate for finished output

» NO PROGRAM FOR APPLE II OR IBM-PC IS REALLY GOOD

- New generation graphics PC’s make possible *great* applications:
  - Graphics environments (MS-Windows, Macintosh) provide a software base (hundreds of person/years each)
  - Adequate processing power (80286, 68000) and memory
  - New graphics displays (640x350 color, 512x342 mono)
  - New printers for overheads (laser with PostScript/Interpress)
  - New non-jaggy video for slides/projection (*e.g.*, VideoShow)

» Can produce at least 80% of 35mm slides (20% are photos)

» Can produce effectively 100% of overhead transparencies
Presentations—a New Horizontal

PC's Used for Presentation Graphics

- 1984: 14% of PC's were used for presentations (=406,000)
- 1989: 52% of PC's will be used for presentations (=10,600,000)
- (Compare—in 1985, 43% of PC's were used for spreadsheets)

-IDC, 1985
Presentations and Spreadsheets

Units Sold (K)

- Spreadsheets
- Presentations


— Future Computing, 1985
Presentation Graphics has **Real Benefits**

- Study by Wharton School, University of Pennsylvania, 1982:
  
  — Presenters using overhead transparencies were "perceived as significantly better prepared, more professional, more persuasive, more highly credible, and more interesting."
  
  — Speakers supported by overheads won approval for their projects **twice as often** as speakers without visuals
  
  — Speakers with overheads generated on-the-spot decisions **33% more often**
  
  — Use of overheads reduced average meeting length **by 28%** (equivalent to 42 days per year for the average manager)
  
  — Use of overheads raised retention to **as high as 50%** from about **10%**

- But—only 1 in 40 business meetings makes use of visuals!

⇒ In the future, **many more** than the present 10 million people could use presentations, if new PC's can make it easy enough
More Benefits from Using a PC

- Improves effectiveness of presentation content
- Improves clarity of complex material
- Allows integration of presentations prepared by several individuals
- Permits preparation of presentation in one location, transmission by telecommunications to a distant locations, and creation there of high-quality slides
- Reduces time to prepare presentations (dramatically)
- Reduces cost to prepare presentations (dramatically)
- Permits correct last-minute changes and revisions

→ A program like Forethought's Presenter allows content-originators to directly and personally control their own presentations
Presentation Market Segments

• 35mm Color Slides
  —traditionally made by poster artists, photographed on color film
  —small image size permits small and bright projectors
  —high-intensity projectors for very large rooms
  —production cost relatively high
  —production usually very slow

• Overhead Transparencies
  —traditionally made by presentors (army officers, teachers, etc.)
  —large image permitted preparation by hand—typing, drawing. ...
  —revolution since 1975: films also fit into photocopiers!
  —today sales at all-time high, almost exclusively to businesses
  —production cost relatively low
  —production usually very fast

Difference in image size is unimportant—just enlarge/reduce

Difference in styles of presentation, audience expectations is profound
“35mm Style” vs. “Overhead Style”

<table>
<thead>
<tr>
<th>35mm Slides:</th>
<th>Overheads:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Shown in a darkened room</td>
<td>• Shown in a fully lighted room</td>
</tr>
<tr>
<td>• Speaker &amp; passive audience</td>
<td>• Discussion encouraged</td>
</tr>
<tr>
<td>• For large or formal occasions</td>
<td>• For smaller or informal meetings</td>
</tr>
<tr>
<td>• Require high ‘entertainment’</td>
<td>• Information value sufficient</td>
</tr>
<tr>
<td>• A performance in themselves</td>
<td>• Accompaniment to a meeting</td>
</tr>
<tr>
<td>• Shaded color graphics, 3D, ...</td>
<td>• Mostly wordcharts &amp; diagrams</td>
</tr>
<tr>
<td>• Prepared by graphic artists</td>
<td>• Prepared by Presentor or staff</td>
</tr>
<tr>
<td>• Artistic skill and equipment</td>
<td>• Mostly typewriter plus copier</td>
</tr>
<tr>
<td>• Weeks of planning typical</td>
<td>• “Still hot from the copier...”</td>
</tr>
</tbody>
</table>

*Difference between “35mm style” and “overhead style” visible in any presentation format*
# Software Market for 35mm and Overheads

<table>
<thead>
<tr>
<th>35mm Style</th>
<th>Overhead Style</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The customer is:</strong></td>
<td><strong>The customer is</strong></td>
</tr>
<tr>
<td>- central service depts</td>
<td>- the department or person who originates the content and gives the presentation</td>
</tr>
<tr>
<td>- independent producers who make slides for clients</td>
<td></td>
</tr>
<tr>
<td><strong>Classic vertical market:</strong></td>
<td><strong>Classic horizontal market:</strong></td>
</tr>
<tr>
<td>- function is dominant</td>
<td>- practical use prevails</td>
</tr>
<tr>
<td>- dedicated workstations</td>
<td>- multi-use office PC’s</td>
</tr>
<tr>
<td>- specialized peripherals</td>
<td>- multi-use office peripherals</td>
</tr>
<tr>
<td>- s/w and h/w sold together</td>
<td>- s/w available separately</td>
</tr>
<tr>
<td><strong>Comprehensive packages today:</strong></td>
<td><strong>Nothing comprehensive today:</strong></td>
</tr>
<tr>
<td>- Genigraphics</td>
<td>- PC software for charts</td>
</tr>
<tr>
<td>- Execucom</td>
<td>- PC software for paint/draw</td>
</tr>
<tr>
<td>- Dicomed</td>
<td>- PC software for diagrams</td>
</tr>
<tr>
<td>- Artronics/3M</td>
<td>- PC software for 35mm</td>
</tr>
<tr>
<td>- MagiCorp</td>
<td>- PC software for animation</td>
</tr>
<tr>
<td>- Quantel</td>
<td>- a couple of weak products for overhead market</td>
</tr>
<tr>
<td>- Via Video</td>
<td></td>
</tr>
<tr>
<td>- Aurora</td>
<td></td>
</tr>
<tr>
<td>- Symbolics</td>
<td></td>
</tr>
</tbody>
</table>
Our Target is Overhead Style

- 500 million overhead transparencies per year, 99% made manually
- Additional 35mm slides (and video) which are really “overhead style”
- 1986-model PC hardware and peripherals could make all of them
- New standard peripherals—especially laser printers—are perfect
- Largest group of individual customers to buy and use PC software
- Potential customers (presenters) accustomed to making their own
- Direct use of PC-generated data in presentations important
- Speed of last-minute production and personal control are vital

Hence we will target:

—Conventional Overheads (mono, laser or impact printer)
—Color Overheads (inkjet or thermal transfer printer)
—“35mm Overheads” (overhead style, on 35mm slides)
—“Video Overheads” (overhead style, feed to video)
### Presentation Display Environments

<table>
<thead>
<tr>
<th>Format</th>
<th>Computer Peripheral</th>
<th>Presentation Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monochrome Overheads</td>
<td>Laser Printer or Impact Printer</td>
<td>(Photocopier), Overhead Projector</td>
</tr>
<tr>
<td>Color Overheads</td>
<td>Ink-Jet or Thermal-Transfer Printer</td>
<td>Overhead Projector</td>
</tr>
<tr>
<td>&quot;35mm Overheads&quot;</td>
<td>Film Recorder</td>
<td>35mm Projector</td>
</tr>
<tr>
<td>&quot;Video Overheads&quot;</td>
<td>Monitor Video Out LCD Overlay Frame (Floppy Disk Drive)</td>
<td>Video Monitor, Projector Overhead Projector (Floppy to Video Player)</td>
</tr>
</tbody>
</table>
Printers for Overheads

- **Impact Printers**
  - Epson, IBM, Apple, Okidata, ..., all standard printers
  - New ones are pretty good, photocopy to transparencies
  - Already sold with almost all PCs, price as low as $500–$1,500

- **Laser Printers**
  - 300 dpi, built-in image computer for use on networks
  - Standard Page Description Languages (PostScript/Interpress)
  - Prices now at $5,000, will drop to $2,000
  - Used widely now for word processing, desktop publishing, ...
  - Current example, Apple’s LaserWriter (supported on Windows)

- **Color Printers**
  - Color second-generation ink-jet or thermal-transfer
  - Resolution 200–300 dpi, subjectively often better
  - Prices $1,500–$5,000 (few color copiers yet)
  - Some with network interfaces and PostScript/Interpress

(Overhead films exist for all of these—even impact printers!)

- **Film Recorders (35mm)**
  - Single purpose, expensive at $8,000–$20,000, supported

- **Pen Plotters**
  - Supported, but unlikely to be of any importance whatsoever
New Video Presentation Devices

- Up till now everyone has preferred electro-optical projectors:
  - Slide/Overhead Projectors: 2000–5000 lumens, $600–$2,500
  - Video Projectors: 250–400 lumens, $7,000–$20,000

- New devices promise to change this within a couple of years:

  Idea: Use LCD displays from pocket TVs or laptop computers
  Put on transparent substrate, shine a bright light through

- Variant 1: from consumer pocket color TV (e.g., Seiko/Epson)
  - diagonal about 2 inches, 220 x 240 pixels color
  - can be projected with 35mm projector lamp and optics
  - small, light, bright video projector under $1,500!

- Variant 2: from laptop computer display (e.g., Zenith Z-181)
  - diagonal about 10 inches, resolution up to 720 x 480
  - overlay frame, to put on stage of existing overhead projector
  - monochrome now, color about a year away (same resolution)
  - overlay price under $1,200! complete projector under $2,000!

- First shipment: July 1986 by Sayett, division of Eastman Kodak,
  - overlay frame, 640 x 200 for CGA video, $1,200
Implications for Presentation Software

- Bulk of presentations will continue to be made with transparencies
- Excitement of video will be important for positioning, will grow

Video will create opportunity to use motion and animation

- fades, transitions, progressive disclosure, highlighting, cycling color changes, "Times Square" banners, ...
- important early, to demonstrate value of video over slides

New projectors will create opportunity for "presentation on disk"

- Build a single-board computer and disk into LCD projector
  Like a 35mm or overhead, but with slot for a 3.5" disk
  No display, no keyboard, no cables, one on/off switch
  Controlled by infra-red remote control for advance, etc.

- Insert a disk, it starts itself up and only gives a presentation
  (no computer interaction visible, completely dedicated)

- Remote control for forward, back, random access, titles
- "Video Overheads," no need for physical transparencies
Personal Computer Environments

**Macintosh**
- M68000, 512K/1M memory, monochrome display 512 x 342
- Only suitable environment today, lots of cooperating software
- Apple pushes ‘Desktop Publishing,’ overheads a natural fit
- No color yet (display or printers), no video out—just transparencies
- Exact configuration sold for Desktop Publishing is ideal for those

**MS-Windows**
- iAPX 80286, 512K memory, EGA color (640 x 350) or better
  (IBM, Compaq, Tandy, Zenith, H-P, NEC, ATT, ...)
- 40% of developers support Windows (12% Topview, 6% Gem)
- Over a million AT's already installed, half with EGA cards—so existing base of suitable hardware about equal to Mac
- Should be unlocked with protected-mode DOS and Windows, 1Q87
Timing of Macintosh vs. Windows

- Right end-user environment for Presenter:
  - PCs have graphics display, mouse, and software environment
  - PCs have graphics printer to print good fonts and any graphics
  - Other graphics programs exist, to generate presentation data
  - Standard user interface, program switches are fast and smooth
  - Device-independent graphics, proofing and final-image devices

- Will surely be true for Windows on IBM soon—but not quite yet
- Already true for Macintosh today
- Still some gaps in Windows, waiting for protected-mode DOS
- Windows has become more like Mac, easier to port Mac programs to (since Microsoft—leader in Mac apps—is doing more than anybody)

- Hence: the fastest way to a good MS-Windows product:
  1. Develop first for Macintosh
  2. Port the result to MS-Windows

...and MS-Windows application for Summer 87 is just about right
Product Concept: Presenter

- A **personal** presentation tool—for the content-originator, not for the corporate communications department

- Used directly to structure, compose, and edit presentations—not just to type/draw a final form from someone else's notes

- A "better tool" with real advantages in speed and quality over pencil and paper plus a staff of people to do the work

- Unit of work is a presentation—not just a set of slide formats
  - an editable sequence of individual editable slides
  - standard repeating elements, formats, tools
  - typeset text, multiple fonts, special formatting
  - tables, charts, art from any source (clip and/or resize)

- Slides can be inserted, deleted, copied and re-ordered graphically or by titles. Single slides or sequences can be edited and reused in new presentations just as with paper

- Speaker's notes, outlines, and a variety of handouts are generated, as well as the slides themselves
Sharply Focused on a **Particular Function**

**Word Processor**
- Multi-font and style paragraph editing
- Spelling checking
- Find and replace

**Thought Processor**
- Outline formatting

**Page Layout**
- "Master" elements
- Cropping/resizing
- Magnetic guides
- Page numbering

**Presenter**
- Special new features just for presentations

**Data Base**
- Locate and merge slides by content
- Multiple "layouts" for data

**Spreadsheet**
- Table formatting

**Structured Drawing**
- Boxes (& rounded)
- Lines, arrows
- Patterns, color
- Constraints
New Design for New Environments

- Existing presentation packages stress business charts above all, but Presenter has no tools for bar charts, pie charts, ...!

  —Presenter has easy access (via multi-tasking and Windows macros or DDE in Windows, switcher in Macintosh) to a spreadsheet/charting program such as Excel or 1-2-3

  —The right place for charting is where the numeric data is, permitting a unified interface for calculation and charting

- Existing presentation packages come in multiple versions for signs, org charts, project charts, CAD drawings, ...

  —Presenter can incorporate any or all of these elements in a single presentation, through data interchange

- Existing presentation packages come in multiple versions tuned for specific output devices (slides, overheads, video, ...)

  —Presenter can work with all devices supported in the environment, and automatically works with new devices
Integrates into Rich Environments

SPECIALIZED SOURCES OF GRAPHICS AND DATA ELEMENTS
- Chart
- Draw
- Paint
- Project
- Excel
- Thinktank
- Etc., ...

• Compose, organize
• Slide layout
• Text (layout & edit)
• Tables
• General drawing
• Clipping, resizing
• Previewing
• Master formats
• Page layout for
  - slides
  - talking papers
  - handouts

OUTPUT TO
- PAPER
- OVERHEADS
- 35mm SLIDES
- VIDEO

— works with any device supported in the environment
Presenter Product Evolution

• Initial product:
  —create, structure, edit presentations
  —layout slides, direct word processing for word charts
  —general drawing, clipping and resizing of any art
  —master formats, custom tools, libraries of art and slides
  —page layout to print slides, talking papers, handouts
  —preview presentation (whole screen, keyboard advance)

• Clip Art for use in Presentations
  —maps of states, counties, SMSAs, etc.
  —thematic and decorative art, for vertical specialties
  —borders, arrows, headlines, sized to fit slides

• International Versions
  —For Mac, only if Apple funds and sponsors
  —For Windows, with OEMs: Olivetti, Nixdorf, Apricot, Thomson, et al.

• Version II (to take advantage of new video devices)
  —add transitions, animation, motion
  —add ability to create self-running presentation on disk
  —sell hardware: infra-red remote control, tees to keyboard
    (with LCD overlay, makes a PC a presentation projector)
  —work with device manufacturers on dedicated disk-projectors
Presenter Can Sell through Dealers

- Presentations require graphics displays and printers—hence a very strong and justifiable reason to buy a graphics PC
  (—word processors, spreadsheets, databases, project schedulers, ..., all can run on character-mapped PC’s)

- Computer hardware dealers will continue to carry Presenter among their dwindling inventories of software, to sell hardware:
  —new generation of graphics PC hardware
  —hardware necessary to run Windows (upgrade cards, monitors)
  —expensive high-margin peripherals such as LaserWriters

- Presentations are a personal productivity function—require very little access to corporate databases or IBM mainframes

- Presentations are composed by many people—unlike “desktop publishing” which may be a single machine for pubs department

- Presentations match LANs of graphics PC’s with shared files and graphics peripherals (e.g., LaserWriters) in departments

⇒ More businesspeople who can sign $10,000 purchase orders want to make presentations—themselves, personally—than to do anything else requiring a graphics personal computer
Presenter Corporate and VAR Sales

- Presenter will sell directly to large corporate accounts
  - companies who use presentations for internal communication
  - companies who use presentations in training
  - companies who use presentations as sales aids

- Some companies use far more presentations than others
  - identify by clustering in early sales through dealers
  - focus on corporate adoptions and site licenses

- Such presentation-intensive companies are also excellent candidates to purchase new graphics-oriented hardware (hence an inducement for allies who are selling hardware)

- VAR opportunities in selling to customers who now make presentations by hand (99% of all overheads) and who do not yet have a personal computer—"waiting for graphics"

- Complete VAR sale can include software, PC hardware, and also presentation display (AV) hardware
Strategic Partners

• Presentation Preparation Equipment (PC) Manufacturers
  - IBM: important application to upgrade existing PCs
  - Other Windows OEMS: to show superior graphics
  - Apple: relates strongly to Desktop Publishing niche
  (Also, Microsoft: important program to show off Windows)

• Presentation Display Equipment (AV) Manufacturers
  - Eastman Kodak: multiple related products, LCD overlay frame
  - 3M: manufacturer of overhead projectors and films
  - Eiki / Bell & Howell: overhead projectors, Xenon 35mm
  - Xerox: Interepress laser printers, color inkjet printer
  - Polaroid: inexpensive slide maker, instant-picture monopoly
  - Japanese companies: several in LCD video projectors as well as laser printers and color printers

• Software manufacturers whose products are enhanced, e.g.:
  - Microsoft Excel (put business charts into presentations)
  - Aldus PageMaker (put presentation slides into documents)