

Cine-Play label. The initial release, *Detectron*, features 3-D modeling and an easy-to-use interface that seems sure to appear on multiple CD platforms in the near future. It even features (surprise!) claymation mutants.

Not all companies who invested heavily in CD-based entertainment have fared well. Yet, some of their products are about to come to market. **Cinemaware's** *It Came From The Desert* is still expected to appear "real soon now" on the **NEC TurboGrafx 16**. In addition, **Spinnaker Software's** *LaserLords* is expected to debut on CD-I before the end of the year, even though the company is (at least temporarily) out of the entertainment software business.

Standard Oscillating Procedure

Being so close to a breakthrough in data storage and innovative software presentation, one would think that all is well in the entertainment software industry. Yet this is not the feeling among computer game publishers. CDTV's slow start along with the long-delayed debut of CD-I has created uncertainty. Combine this uncertainty with the "standards" controversy and the road to CD paradise seems fraught with thorns. **Sony** is attempting to create their own proprietary standard for CD-ROM storage. Prior to their proprietary standard, **Nintendo** was planning for **Sony CD-ROMs** to be the dominant player in the **Super NES** market. Now, **Nintendo** is planning to switch horses in the middle of the stream and change to the **Phillips'** standard before too long. Our sources indicate that they are asking their developers to choose between standards.

Sega was also soliciting developer support for a CD platform at CES. Their CD player, to be released in Japan during the fall of this year and possibly to reach our shores by the next fall, will allegedly have its own 68000 processor, contain 64K of ROM to handle eight channels of sound, use 32-kHz sampling, feature 10-18 frames of video per second (if accompanied by sound), utilize 6.5 MB of storage on each CD and allow up to 56 minutes of full-motion video to be stored on each disk. The system will even feature surround sound and some more advanced video features for extended screen handling.

We also discovered that video-game developers are not the only ones faced with standards-based dilemmas. In addition to **Sony's** proprietary standard, the **Microsoft** CD-ROM-XA approach and the approved technical specifications of the **Phillips'** CD-I project, **NEC** announced their *New Interactive Display (NID)* technology. Fortunately for multi-media personal computer developers, this technology is compatible with the **MPEG** video standards and the multi-media hardware. The technology allows for 100:1 video compression which, in turn, allows 20,000 still pictures per compact disc or up to sixty minutes of full-motion video per disk. The company claims that its "standard" will provide the highest



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rate of compression with the clearest possible pictures. It doesn't feature resolution as high as DVI, CD-I or IVD (it is 512 x 256 as opposed to 640 x 480 and up), but judging from the **NEC** demonstration at CES, this claim is probably true.

Finally, not only computer developers, but also gamers will have to make a major sound card decision in the near future. It is no longer satisfactory to talk about a card being **AdLib** compatible. The new **Gold Card** features true 16-bit technology and almost double the dynamic range of its closest competitors. The difference between the old board and the new board is phenomenal, but (alas!) developers will be required to provide yet another new driver to get the most out of the board. Since **Yamaha** plans to place their chip (the heart of the card) on the motherboard of twenty different PC manufacturers in the near future, **AdLib** promises that the **Gold Card** technology will not conflict with these new machines' additional sound capabilities.

Life in the Third Dimension

Perhaps the most pervasive trend in entertainment software was the amount of three-dimensional modeling to be seen in upcoming computer games. **Cine-Play's** *Detectron* has digitized film and claymation images and moves them across a scanned backdrop. The story is built around a post-holocaust Washington D. C. where people are being kept in a human preserve something like the "Wild Animal Parks" that one would see in the present-day United States. The distinctive walks and movements of some of the characters are very interesting.

An even more sophisticated technique of digitizing film is being used in **Walt Disney Software's** *The Rocketeer*, an action game being developed by **NovaLogic**. In a technique reminiscent of Disney himself bringing in film footage of actual animals in order for his animators to get the moves right, **NovaLogic** is capturing all the action scenes on film (with real human beings); digitizing the figures and manipulating them on-screen. Those who enjoy the film will enjoy this continuing adventure that picks up after the plot line in the film and was approved by *Rocketeer* creator and comic artist Dave Stevens.

Data East unveiled two additional products being developed by **NovaLogic**. The most detailed is *UltraBots*, a robot combat game with a fascinating story treatment and a strategy game to support the action scenes. The company has used ray-tracing to develop three-dimensional models of their distinctive robots and they can manipulate them easily on-screen using their custom tools. In the same way, they have developed a near-future version of armored warfare. It is a three-dimensional world with extremely dark perspectives and fast-moving bit-mapped scaling. Both the near-future battlefield simulation and *UltraBots* feature distinctive cockpits for each vehicle and two separate view screens which update the game environment from two different perspectives.

Accolade's *Les Manley - Lost in L.A.* is a graphic adventure which, on occasion, uses three-dimensional digitized images overlaid across digitized oil paintings. The artwork provides a rich texture for this satirical approach to the stereotypical Southern California lifestyle. The game is a pseudo-sequel to *Search for the King* with a new "look and feel."

Regular **CGW** readers will remember **Sierra's** *Adventures of Willy Beamish* (designed and produced at their **Dynamix** subsidiary) from the "Behind The Screens" feature in the July issue (#84). Designer Jeff Tunnell has created a light-hearted adventure that pushes the edge of the three-dimensional envelope in its handling of character animation and backgrounds featuring a perception of depth.

Sierra opted for near realism in their approach to *Police Quest 3: The Kindred*. In this product, as well as *Conquests of the Longbow: Legend of Robin Hood*, the artists captured live actors on video and used a rotoscoping technique to enhance the scenes with sometimes colorful and sometimes starkly realistic portrayals of scenes that look almost as if they have leaped from the cinema screen itself.

As noted earlier in this article, **Psygnosis' Planetside** features three-dimensional fractal landscapes at twenty frames per second with no compression necessary. The player flies a futuristic atmospheric fighter across the barren wastes of a mountainous planet in this air combat simulation.

In addition, *Wing Commander's* legacy leads on. **Interplay's** *Star Trek* features three-dimensional bit-mapped scaling ships in the tactical space combat sequences. **Konami's** *Top Gun: Head-to-Head Dogfighting Simulation* uses digitized images from the motion picture combined with bit-mapped scaling techniques designed to enhance the look of the planes and their *Team Suzukl* game (originally released in Europe by **Gremlin**) presents motorcycle racing via the same basic bit-mapped scaling technique. In *Aces* (scheduled for 1992), **Dynamix's** latest foray into historical air combat, **Damon Slye** is expected to unleash a faster version of their patented 3-Space technology mixed with technology