

The Indianapolis 500

An Extremely Large Spectacle



Figure 7.20 A small section of stands at the "Brickyard." Spectator stands, literally miles long, house the hundreds of thousands that attend the Memorial Day race.



Figure 7.21 A few hours before race time and the stands are filling up. The race fans that bought an early morning pit pass to tour the pit areas are clearing out, and the racecars will move in.



Figure 7.22 The infield television compound. An event this size commands an electronic village. The two trailers and Ku trucks on the near right side of the compound comprise the "international" feed, and provide the core coverage for everyone in the compound. This "international" coverage was provided by the track's own Indianapolis Motor Speedway (IMS) Productions (11). Behind the "international" camp are the trailers that comprised ESPN's coverage (10). ESPN covered the time trials, and put together prime-time programs right up to race day. The international camera contingent consisted of 33 cameras, not all of which could be housed in the IMS trailers, so some were the cameras that were on ESPN's NEP production trailer. RF cameras were provided by BST (1). In addition, there was one camera mounted on the Saturn blimp. The other half of the compound consisted of ABC equipment, anchored by NMT's DX-10 production trailer (5) and the DX-10T tape trailer (8). ABC also uses these two trailers for Monday Night Football. ABC took the international feed from IMS, and augmented it with almost a dozen additional cameras, namely RF handheld cameras roving the pits. Other trucks in the compound included a PVI virtual graphics truck (9), and BST's in-car camera control trailer (4), plus two additional Ku uplink (besides IMS's) and a C-band uplink truck. ESPN also had an editing and post-production truck from Location Solutions (blue trailer, right bottom area). Other compound support (2) and (3) – utility trailers; (6) – canteen tent; (7) ABC editing and tape library.

Arrow legend: Blue = camera feeds, Orange = graphics/tape feeds, Green = program feeds



Figure 7.23 Power transformer for IMS and ESPN side of the compound could provide 1MW of power. The ABC side of the compound had 1.25MW available. Right is one of the I/O panels into the compound near the IMS trucks, where some of the 33 cameras and 58 mics hit the compound.

Figure 7.24 Top two photos are NMT's DX-10 production and DX-10T, the tape truck. Here the tape trailer is literally docked with a tape archive trailer. The bottom left photo is IMS's B unit, which provided the pool feeds for television stations and networks interested in race qualifying and actual race coverage. Bottom right is the IMS Ku uplink truck.





Figure 7.25 Cameras checking their shots during the final directors fax a couple hours before race time. The director for this race uses the high cameras with semi-wide shots to show battles for position, and will use tighter shots and lower perched cameras if available to narrow in on individuals.



Figure 7.26 "Squash Cam" - Miniature POV camera just off the track that allows the viewer a sense of how fast the cars are moving past a point on the track. Since it is so close to the track there is a chance a wayward racer could run over it, so the camera is mounted on a spring assembly designed by IMS. It is sunk into the ground, allowing the camera to escape destruction if run over, or even just stepped on.



Figure 7.27 More POV cameras. Left, a camera mounted in the track's crash wall, with the same electronics as the squash cam, but most likely kept out of harm's way by the channel cut into the wall. The right camera is a conventional robotically controlled handheld that a crash against the wall could take out. The camera's pan/tilt/zoom is controlled from an office trailer near the IMS production truck.

Figure 7.28 Inside PVI's virtual graphic truck. There was a dedicated PVI L-VIS connected to each of three cameras. One camera was used to provide inserts for the Start/Finish area. Another camera fed an L-VIS that did pit lane rendering, while the third camera fed a system providing virtual advertising on turn 4 of the track, which produced static images of a gooseneck sign that had ads for a couple of advertisers. Each of the systems is capable of inserting static, computer animations or live video with a live key. On the left monitor is an example of driver names being displayed alongside their pit locations. A flashing halo may be used in conjunction with this effect to highlight the pit stall area. The right side of photo shows the track/air temperature interactive graphic. All graphics use real-time tracking and may use occlusion processing (where not to apply the chroma keying) depending upon location and graphic use. PVI's system uses a combination of camera pan/tilt/zoom telemetry from the head, but they also have powerful video recognition software that can map the 3-D space that the camera is looking at into 2-D video space. The output of this truck is fed to the IMS production truck.



In the last two sections we looked at large remotes where one or maybe two sizable compounds were needed. In the next section we will look at an event where nearly a dozen compounds were required, along with one substantial temporary broadcast center. ■

Figure 7.29 Monitor wall displaying 34 cameras and 34 VTRs available in the IMS production compartment, which is producing the international feed and the core racetrack coverage for ABC. The camera complement here includes eight cameras in cars and eight POV cameras. The director and producer will have their hands full during most of the race because under racing conditions the cars can travel the 2.5 mile track in under 40 seconds, and the story is told with approximately 12 camera cuts per lap. The inset photo shows the yellow flag tally above the program monitor, which gets its feed from the race control official. Race control is where the league officials monitor the race and control all aspects of the race. ABC has an associate producer in race control to determine the best time for commercial breaks based on what he observes and hears. Race officials use various feeds from the mobile units to make judgment calls.

