

Democratization of Distribution: How Track Systems Meet the New Demands of Media



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1 The Rise of Smaller Studios

In the early days of television, high-end news and sports broadcasting networks were the “gatekeepers” of viewer attention and the only ones that had the ability and access to run broadcast-quality studio productions. Decades later, the rise of digital cable and wireless Internet has created the democratization of distribution, which has exponentially lowered the barrier for mass broadcasting around the globe.

While it became easier to introduce content to a mass market, broadcast-quality video equipment became more accessible. Before these developments, it was unheard of for independent studios to produce and broadcast a 24-hour video channel, but in today’s world, it’s now possible with applications like LiveStream and TriCaster¹.



¹ <http://socialmedia.biz/2009/12/01/lowering-the-barrier-to-manufacturing-and-distribution/>

1 Continued

Due to the explosive impact this has had on the market, production budgets are being lowered, so more broadcasters are extending their reach and growing with smaller, multi-functional studios that are faster to set up, easier to maintain, and simpler to run.

As networks deal with the limited space, the focus shifts even more on flexibility. While traditional XY pedestals are still a great option for multi-functional studios and provide the freedom to move around the studio, tracks solutions are now being sought out due to improving the efficiency of your workflow, the need for distinct visuals with smooth flow of movement, and designed to fit into a small space.

Meeting these emerging needs, the Vinten Hexagon Tracks are a proven technology that has been successfully used by broadcasters, offers advantages over existing track systems, and is a future-proof alternative to existing tracks systems on the market today.

¹ <http://socialmedia.biz/2009/12/01/lowering-the-barrier-to-manufacturing-and-distribution/>

2 Tracks Solutions Today

For different, on-air moving images to include in their stories, studios have already started to install and employ track systems into their studios. However, many of the traditional track solutions have challenges.

To start, most tracks are designed so that the cables sit either on or outside of the track. Because of this, the connecting umbilical cables usually give off noise when the carriage moves, which could get picked up by the studio's microphones and compromise the quality of the broadcast. Not only that, but poor cable management can lead to tripping hazards for the people in the studio.

And when installing a track system, studios sometimes need to either dig out the floor or build above it since most solutions don't provide the range of height that studios need, especially eye-level shots. Changing the floor height can create added expense for networks and also prevents them from adjusting the position or curve of the tracks in the future. Another continuous issue is that most tracks include only one motor that pushes and pulls the system along the track. Because of this, studios could end up with jerky moves – or stops all together – while broadcasting; not the smooth movements required while broadcasting on-air.

With all these issues in mind, the Vinten solution with the Tecnopoint tracks system provides an advanced and proven solution that offers a unique cable management system, a "walkable" track, and dual synchronized motors for enhanced flexibility and safety in the studio along with consistently smooth movement for broadcast-quality images.

3 Hexagon Tracks: A Proven Solution in Studio and OB Production

The TG3 Newsroom Studio based in Rome broadcasts not only domestically in Italy, but also across the whole European continent. Their newscasts air from Rai Tre's Studios in the small village of Saxa Rubra. Instead of getting an XY pedestal, the network decided to install a 220° curved track surrounding the anchor desk with two dollies operating on the same rail. Because the tracks needed to be close to the set, it was imperative for the rails to be as silent and unobtrusive as possible so the studio's microphones would not pick up any unwanted sound.

With these sensitive specifications, the studio was looking for a solution with minimal noise output that included an anti-collision system so the quality of their programs wouldn't falter.

TG3 chose the Hexagon Tracks because its unique cable management keeps the noise of the system low to non-existent. With the Hexagon everything is inside the track's width of 500 mm (19.68"), so no cables are outside the track; they are all housed in a small cable chain. And to maintain the quality of TG3's news programs, the dollies were also developed with automatic collision avoidance that prevents potential collisions when controlling the movement.



TG3 Newsroom Studio

3 Continued

Even more challenging than newsroom studios, outdoor broadcast setups can face a myriad of production problems, especially since most of their content is time-sensitive and the speed of their studio build can be weather-dependent. This was especially true for the Fox USGA network (United States Golf Association) when they covered the US Open in Seattle, Washington. Since they needed to be on the field to cover the action, the crew worked in a portable studio that – while easy to maintain – was extremely limited in space and flexibility.

Like TG3, Fox USGA preferred the Hexagon Tracks and its cable management not only from a noise perspective but from a safety perspective as well because there are no excess cables to trip on during production. And for those low-angle shots, Hexagon Tracks can go as low as 1 m and up to 1.7 m

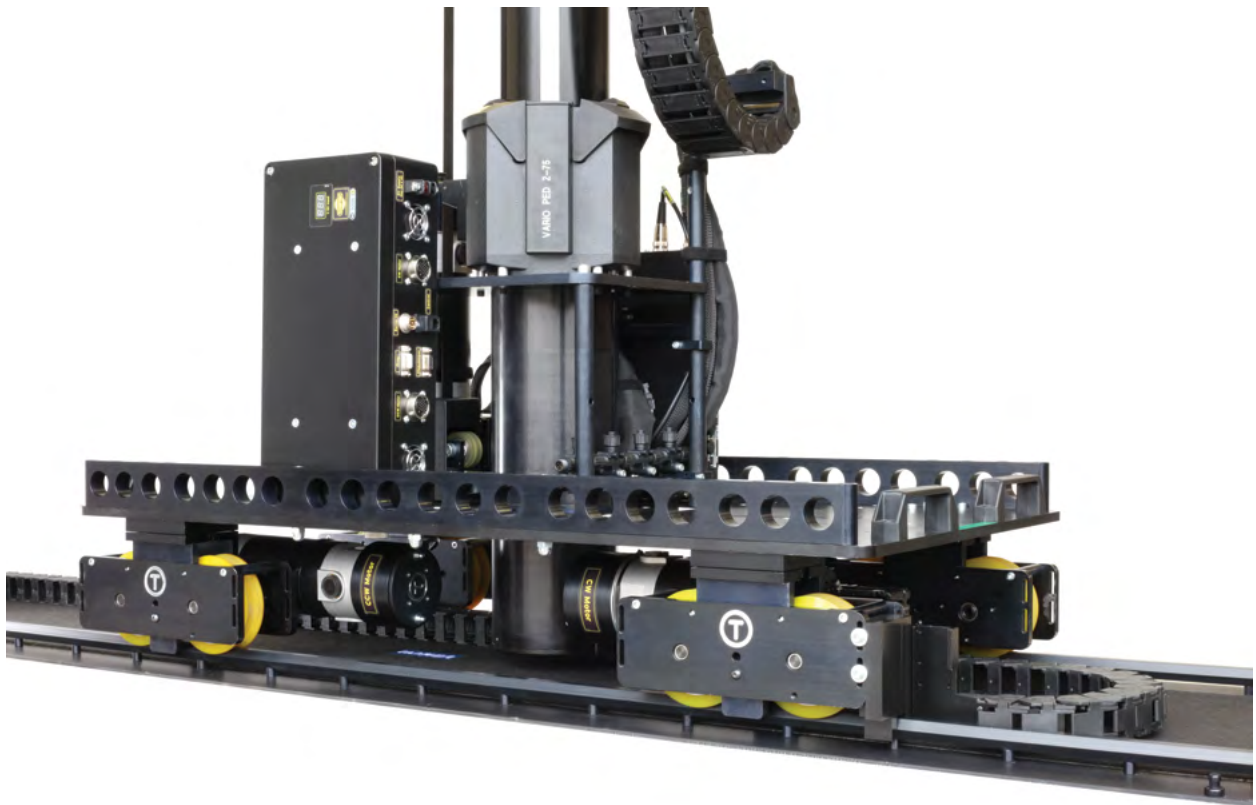


from the ground; the track itself is only 30 mm (1.18”) from the ground, making it the lowest profile track design available on the market today. As a result, the network incorporated the Hexagon Tracks into their studio so that the space could remain “walkable” without anyone having to jump or trip on the equipment, while still providing the eye-level shots required.

Through their partnership, Vinten and Tecnopoint have developed the ultimate tracks solution that’s more widely available to broadcasters looking for a cost-effective upgrade to integrate with their existing control system.

4 Tecnopoint and Vinten Come Together to Meet the Needs of the Market

Retaining viewers with striking, broadcast quality content is the one and only focus that camera operators should have during production. However, with most track solutions, operators usually need to concentrate on two different controls systems – a joystick used to control the pan and tilt of the camera along with foot pedals that control its movement along the track. In today's fast-moving broadcast environment, users can't afford to split their focus between the controls and the content.

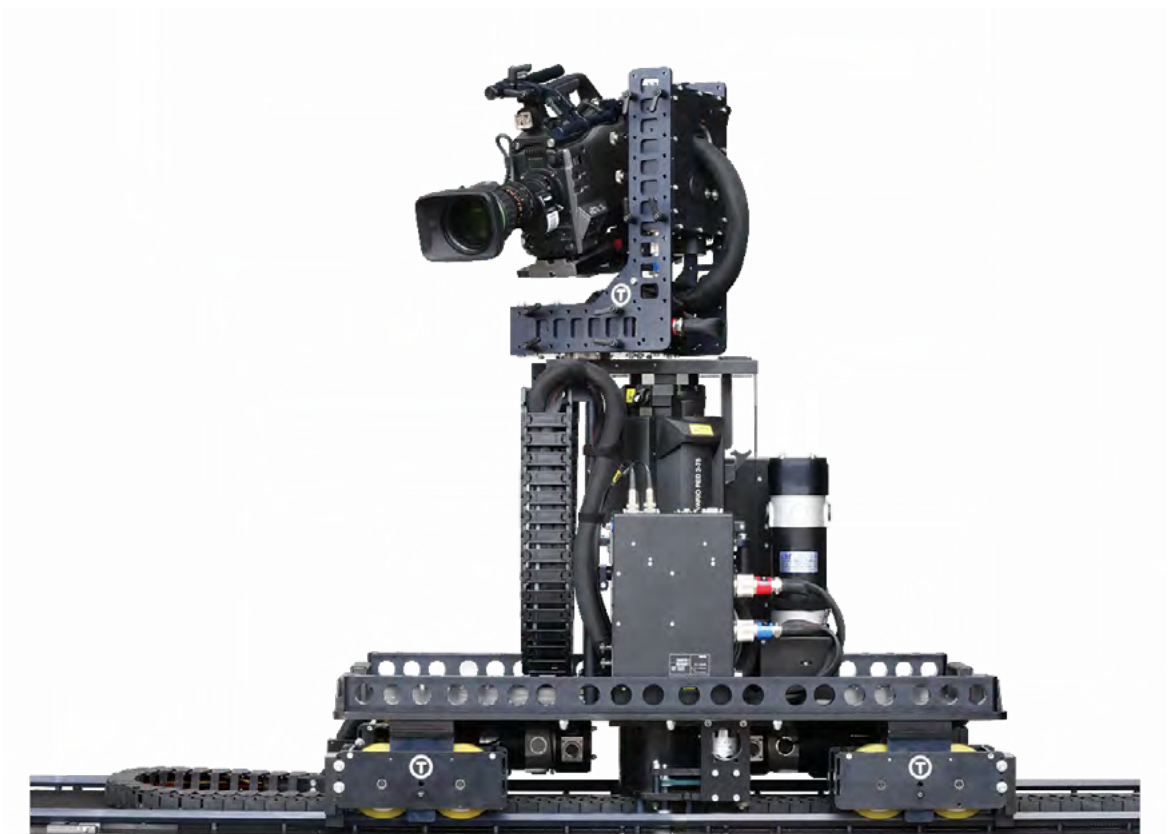


With the integration of Vinten's VRC control system, operators can use the Hexagon Tracks to control multiple cameras using just a single intuitive control platform, ultimately helping shift focus back on the image. And with the largest install base in the industry, Vinten's involvement means that the Hexagon Tracks solution can easily be incorporated into existing studio setups because of the integration between the two solutions. In addition, the track movement can be managed by the playout system like the current robotics can today.

4 Continued

Besides the simple platform that operators are familiar with, the addition of a new absolute encoder has improved the precision of the dolly's positioning. The enhanced control and stability of the Hexagon Tracks also come in part from the four traction wheels with the dual synchronized motors. This design enables the two motors to run at opposite angles, allowing them to both push and pull so operators get higher traction and additional rigidity along the track. With virtually no slipping and enhanced accuracy, this improved functionality can benefit studios that need to place a track uphill at an angle or in wet conditions outdoors.

With the future of content in mind, this level of accurate positioning and movement from the Hexagon Tracks is ideal for studios starting to incorporate virtual reality or augmented reality (VR/AR) into their programs. As studios continue to get smaller, VR and AR technology can transform that limited space into a more multi-functional setup with endless possibilities. As this transition continues to happen, the Hexagon Tracks continues to be a popular option because it has a defined length that won't go off-shot and improved measurements of positioning, giving studios superior-quality VR/AR content for continuous viewer engagement.



5 Conclusion

Combining two leaders in tracks and operating systems, the Hexagon Tracks is yet another proven system that Vinten is adding to their already formidable line-up of complete robotic solutions. Recognizing the evolving demands of the new broadcast environment, this technology offers a cost-effective, upgraded solution to Vinten's existing customer install base. From in-studio to OB production, the Hexagon Tracks provides a future-proof alternative over existing track systems currently on the market, helping to deliver smooth, broadcast quality, visually dynamic content to millions of viewers around the world.