SMOOTH MOVER

THE AXIS DOLLY IS GREAT FOR BOTH TABLETOP WORK AND TRIPOD USE.

BY JAY HOLBEN

As a cinematographer, I was a dolly man. I preferred them whenever possible, as I found that tripods were often too constricting, time consuming, and too tedious to move and adjust — especially with heavier cameras that took two people to raise or lower the tripod. Everything was just easier, faster and more comfortable on a dolly.

The biggest disadvantage of small dollies, however, is the fact that the operator has to walk along with the dolly. This means your operator is concentrating on his or her own movement (around the dolly) *and* on operating the camera. Often, on smaller, inexpensive dollies, the operator is not only walking along, they're the one pushing it! This severely limits the operator's ability to compose the frame. It's not like handholding or Steadicam, where the equipment becomes part of your body: Walking along, pushing the dolly and holding the panhandle while watching the action and composing the shot is an incredibly complicated list of duties to humble even the most seasoned operator. The physical limitations of the dolly, tripod and your body position often make larger moves impossible; you just end up tripping over the equipment. In addition, because the operator is pushing (or pulling) the dolly from a standing position, high above the dolly's center of gravity, this motion is considerably affecting the dolly's performance in doing so.

That said, not everyone can afford big dollies, and not every shooting situation will allow for or require a larger dolly. There are many applications where small, compact platforms for little movements really shine over the Cadillac-sized professional units.

ENTER AXIS

The Axis is a robust, well-constructed, small system that offers a considerable amount of versatility in a very reasonably priced package.

The Axis is a triangular-shaped platform with three sets of wheels, one at each tip of the triangle. Each wheel is adjustable within single-degree increments and setting the wheels in various configurations will make the dolly travel in a straight line or in an adjustable radial curve around a fixed subject. In essence, you can perform precise curved dolly moves without requiring the curved dolly track.

The Axis Dolly was created using the same concept as the higher-end P+S Technik Mini-Skater dolly, with some advantages in Axis' corner, including the price point, which is almost a quarter of the cost of the Mini-Skater.

The Axis Dolly is rather perplexing at first, but even with the very rough assembly instructions on their Web site, and a moment or two working with it, the concept becomes intuitive. Like the Mini-Skater, the Axis can work as a tabletop dolly, and this is where I think it really works best. You can mount a tripod head directly to the dolly, as long the head has a flat base and a 3/8"-16 threaded tie-down. The surface of the dolly sits a mere four inches off the ground so depending on the head you're using, you can get some really low shots. In tabletop mode, the Axis can do straight-line moves in any direction you choose, or you can set a curved move around a fixed radius. You can also set the wheels to spin on the dolly's own center axis and create a high-hat that pans, which is a really cool feature.

There are three business card-sized "cheat cards" included with the Axis that give you degree measurements for specific radius sizes so that you can quickly set the wheels to perform curved movements. You can also download a Microsoft Excel spreadsheet or PDA application from the Axis Dolly Web site to calculate your own radii.

SCORE

AXIS DOLLY ♥♥♥♥

PROS: Exceptional capability and price. **CONS:** Difficult to break down for transport and storage, no braking system. **BOTTOM LINE:** A great addition to your kit. **MSRP:** $1,999 **CONTACT:** www.axisdolly.com

Unfortunately, where the Mini-Skater has one up on the Axis is that the Axis has no easy way to quickly rough-in the wheels. You have to refer to the cheat cards or use one of the software calculators to set your wheels, which is a bit tedious at times. Also, I saw no listing on the cards for straight moves, only curves, so I had to figure out how to set the wheels to execute simple straight moves. That is somewhat intuitive, but not the same setting in all configurations of the dolly.

It's also somewhat frustrating, especially for a perfectionist (such as myself), to see the measurements on the cheat cards in 1/10th of an inch increments. It's impossible to set the wheels to anything other than whole numbers, so why show us fractions? The degree markings on the wheels are 1mm apart and trying to set the pointer at anything other than a rough midpoint (which isn't easy) between the markings is difficult... to say nothing of setting it at some fraction thereof. The calculations should simply be rounded to the next whole number.

The cards are printed with calculations in inches on one side and centimeters on the other, which is handy, but the distinction is rather subtle and you have to be careful and make sure you're reading the right side. The degree markings on each wheel are divided into "positive" and "negative" areas. If you're going too fast or looking at the wrong line or side of the card, it's easy to set the wheels incorrectly, mistaking a positive degree setting for a negative one or vise versa. To solve that, it would be handy to color-code the markings with one color for positive areas and one for negative areas and then color code the cards to correspond. When you incorrectly set the wheels, it's not always instantly apparent which wheel is wrong and I often had to go back to the beginning to find my mistake. Color coding would simplify that process greatly.

The wheel settings are locked in place purely by tension with a 3/8" threaded tie-down knob. You need to be careful as you're positioning the wheels that tightening the knob does not change the setting. I found if I didn't give the tie-down a good tight set, it could come loose and the setting would drift — especially if any counter-clockwise pressure was applied to loosen the threads. This is easily solved, however, with some diligence about tightening the knobs.

The Axis is hefty — about 10 pounds in tabletop (mini) configuration — but it can impressively handle up to 250 pounds (nearly four times what the Mini-Skater is rated for). I could easily stand on the dolly with no problems.

Where the Axis is also distinguished from its competition are the extension pieces that allow you to mount a tripod on the dolly. With three heavy-duty extensions (one for each leg), you can increase the base size of the Axis and easily affix a tripod to it.

I found that when I put the Axis in tripod mode, the skateboard wheels were simply too small to really be useful. Any dirt or imperfections in the surface I was dollying on were translated to the camera. This is somewhat solved by incorporating Axis' track wheels, intended for use with standard dolly track or even inexpensive PVC pipe. The track wheels certainly make for a smoother ride (on clean track), but eliminate the curved abilities of the dolly and, therefore, eliminate the main strength of the dolly. Axis has manufactured a few sets of prototype pneumatic wheels, which I did not get a chance to try out, but those would certainly go a long way toward solving this issue.

WHAT'S NEXT

Axis is certainly listening to their users and they manufacture a number of accessories that really elevate the working abilities of the dolly considerably. The first of these accessories is the pushbar: A simple 36" T-bar attaches to any open mounting point on the dolly base and allows someone else to push/pull the dolly, freeing the operator from that task. The handle is simple, but well designed to easily adjust and move with the dolly.

In addition, Axis is currently working on a seat so that the operator can ride the dolly. If that works, my primary complaint about the dolly is moot and this becomes an incredibly versatile tool for many applications.

I worked, for the most part, with the Axis in tabletop mode. If I was careful about setting the wheel degrees, I was astonished at the precision and repeatability I got from the dolly. After about 20 repetitive revolutions in the same radius, I saw a drift of about two percent (approximately 1/4" in a 12" radius move), which was very impressive. The Axis took me about five minutes to convert from tabletop to tripod mode, and five minutes to convert back.

It's a little rough to break down for transport and storage. No matter how you set it down, you're always setting it on the wheels or on the edges of the wheel mounts where the calibration marks are. I found no easy way to store it. From the Axis Dolly site, I see a soft case is in the works, which would, again, eliminate that complaint and is something that is seriously needed.

My final note is that, aside from positioning the wheels in the "stop" position, where they all turn inward against each other so that the dolly doesn't move, there's no way to lock the wheels or safety the dolly. A brake system — even a simple one — would offer a significant benefit.

All in all, for the price point, the Axis delivers an incredibly versatile, rugged and precise tool that really has no peers. DV