



EMC and Ibrix elbow out Panasas at Disney Studios

By Beth Pariseau, News Writer
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Walt Disney Studios purchased fellow animation powerhouse Pixar Animation Studios almost a year ago in a blockbuster \$7 billion deal. With the deal came some turnover in creative executives and sparked new ideas about the direction of Disney's next animated feature, *Meet the Robinsons* due out in March -- changes that Disney feature animation vice president of technology Jack Brooks said were "not trivial."

"It required us to install an entirely new system in three to four weeks to accommodate all the changes we were making," Brooks explained. Disney is heavily reliant on 25 million "texture" files -- small but high-resolution images that are grafted onto 3-D models to create colors and textures, like skin, hair or fur on characters.

A major character usually appears in at least 50% to 75% of the shots and Disney was continually hitting about 1 million of those 25 million texture files. This was creating "hot spots" in the firm's Panasas Inc. cluster that Brooks said was becoming outdated. Add to the process the revisions from the new creative executives, and it would far exceed the capabilities of the older [network attached storage \(NAS\)](#) cluster.

Disney, Brooks said, figured out it needed to do two things: replace the Panasas cluster and its included storage with a system three times as big, with three times as much throughput, within a month, tops.

"It was a complete panic," Brooks said. Because of that, the company reached out to Ibrix, already battle-tested by its subsidiary.

Pixar has been using the [Ibrix SAN filesystem](#) since the production of its latest feature, *Cars*. Brooks said the recommendation from Pixar was what spurred Disney to work with Ibrix, but that the system Disney put together was newer, bigger and faster.

"They bought their's a year to two years ago," Brooks said, adding that the moviemaking processes of the two studios remain largely separate. "Ours has much more cache on the Dell Inc. [NFS](#) heads -- 32 GB each, much more memory and more capacity." Disney also has a bigger "render farm" of 2,000 server nodes that puts all the digital information into each animation frame.

NetApp OnTap GX wasn't a consideration

Behind the [Dell servers and the Ibrix file system](#) is the usual suspect: EMC Corp. Disney has two EMC CX3-80 [storage area networks \(SAN\)](#) running at the back end of this system. The studio also added two new Network Appliance Inc. (NetApp) filers for Tier-2 and Tier-3, using a FAS 6070 Fibre Channel-based system and a FAS 6030 with 500 GB SATA disks respectively.

Asked whether NetApp's OnTap GX clustering system had been a possibility, Brooks responded, "No -- at the time, it really wasn't ready to go." (GX had [just started shipping](#) last June; Brooks said the purchase process for the Ibrix system took place around July and August last year.) Otherwise, according to Brooks, Disney is a large NetApp shop in general, and he said he will be evaluating OnTap GX again at a later date.

"For right now, though, we're completely happy with the EMC/Ibrix system," he said. Disney did not evaluate newer Panasas products due to time constraints.

The studio is "in transition" between finishing *Meet the Robinsons* and starting its next animated feature. The next step after completing *Meet the Robinsons* footage will be to "park" the files on the Tier-3 NetApp filer for awhile before sending them off to archival media, which Brooks declined to describe in detail.

"There isn't a lot of migration with our tiered storage system," he said. "It's designed so that we put the correct data in the correct place only once or twice during the whole process and then just leave it there. It's more about freeing up performance on the most heavily used files than anything else."