PIXMOVER™

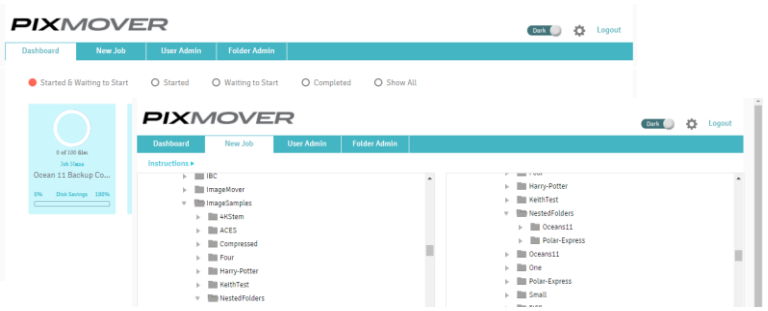
Workflow Tool for Storage Optimization

Key Benefits

- Provides flexibility in managing Imaging Projects and Assets
- Typical Cost Savings of 50% to 80%
- Reduces Transfer Times by 50% to 80%
- Reduces the Complexity of Data Migration Projects
- Creates Backups Faster
- Restores from Backups Faster
- Reduces Strain on oversubscribed Networking Infrastructure
- Postpones New Storage CapEx purchases
- Reduces OpEx costs for Storing Imaging Assets
- Optimizes Cloud Storage and Egress Costs

Overview

PixMover™ is a storage and transfer optimization tool for the media and entertainment production workflow. PixMover™ employs Pixspan's patented Bit Exact Round Trip™ compression that saves 50% to 80% of imaging resources including disk space, transfer time, and their associated costs. PixMover™ operates on full resolution images, covering both digital intermediate and camera raw formats. Users interface with PixMover™ through the Web-based UI.



The product also includes a RESTful API that allows PixMover™ to be driven by external applications like content management systems.

Creating Backups

Movie and TV productions create numerous backup copies, some for bonding requirements, and some for disaster recovery or convenience reasons. These backup copies are costly to make, both in terms of dollars spent on storage media, as well as in the cost of lost productivity of equipment and personnel. PixMover™ dramatically reduces the costs by making compressed backups that can be restored to bit exact replicas of the original files. Creating a compressed backup is as simple as dragging and dropping a folder and selecting a few options. The backup copies will typically be 50% to 80% smaller than the originals, which means more backups can be made, and restore operations from the backups will be significantly faster.

Dealing with Perpetually Full File Systems

Ongoing increases in resolution and quality requirements in media and entertainment result in file systems that are continually at maximum capacity. Traditional techniques of offloading projects to LTO are very disruptive to the workflow, introduce delays in schedules, and are prone to error. PixMover™ provides a simple but powerful tool to manage projects in a full file system with the compress-in-place feature. This capability shrinks the size of projects on the file system by up to 80%, without removing them. Free space on the file system will start increasing immediately after the job is kicked off, allowing for new projects to begin loading.

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Platform Support

Operating Systems

- CentOS 6.X, 7.X
- EC2 Linux
- Ubuntu Linux
- OSX
- Windows 10 Enterprise

Hardware

- Intel E5-26XX, Core i7/ i5/i3, Xeon X56XX Processors
- NVIDIA Quadro M5000, M6000, P6000, GP100
- GeForce GTX Titan X (Maxwell), Titan X Pascal, 1080 Ti

Performance

The performance of PixMover™ scales with the performance of the hardware platform employed. PixMover™ can operate on a CPU-only platform, a CPU/GPU platform, and a distributed platform with one head node and multiple worker nodes.

Platform Description	Encode Time (for 1 TByte)	Decode Time (for 1 TByte)
Intel 5670, 16 Cores	42 min	42 min
Intel 2687W-V3, 20 Cores	26 min	26 min
Intel 2687W-V3, 20 Cores, NVIDIA M6000	19 min	11 min
Intel 2687W-V3, 20 Cores, NVIDIA P6000	14.5 min	8.5 min
Intel 2687W-V3, 20 Cores, NVIDIA GP100	14.5 min	7 min
Intel 2687W-V3, 20 Cores, Dual NVIDIA P6000s	11 min	5.5 min

PixMover™ operates on a wide variety of formats associated with the digital intermediate and camera raw formats as shown in the following table. In addition to standard file variations like big/little endian, PixMover™ also includes non-standard formats, for instance, the DPX frames created by the Digital Film Technology scanners which add “scratch identification” bits to DPX.

Format	Resolution	Bit Depth (bits)	Configuration	Plane Configuration
DPX	HD, 2K, 4K (any)	1, 8, 10, 12, 16	4:4:4:4, 4:4:4, 4:2:2, 4:2:0	RGB, RGBA, BGR, Multi-plane
Cineon	HD, 2K, 4K (any)	1, 8, 10, 12, 16	4:4:4:4, 4:4:4, 4:2:2, 4:2:0	RGB, RGBA, BGR, Multi-plane
OpenEXR	HD, 2K, 4K (any)	1, 8, 10, 12, 16, 32	All	RGB, RGBA, Multi-plane
TIFF	HD, 2K, 4K (any)	8, 10, 12, 16	4:4:4:4, 4:4:4, 4:2:2, 4:2:0	RGB, RGBA, Multi-plane
PPM	HD, 2K, 4K (any)	8	4:4:4	RGB
Panasonic VRAW	4K	10, 12	Bayer	RGB
ARRIRaw	2K, 2.88K, 3K, 6K	12	Bayer	RGB
Canon c500 Raw	4K	10	Bayer	RGB

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