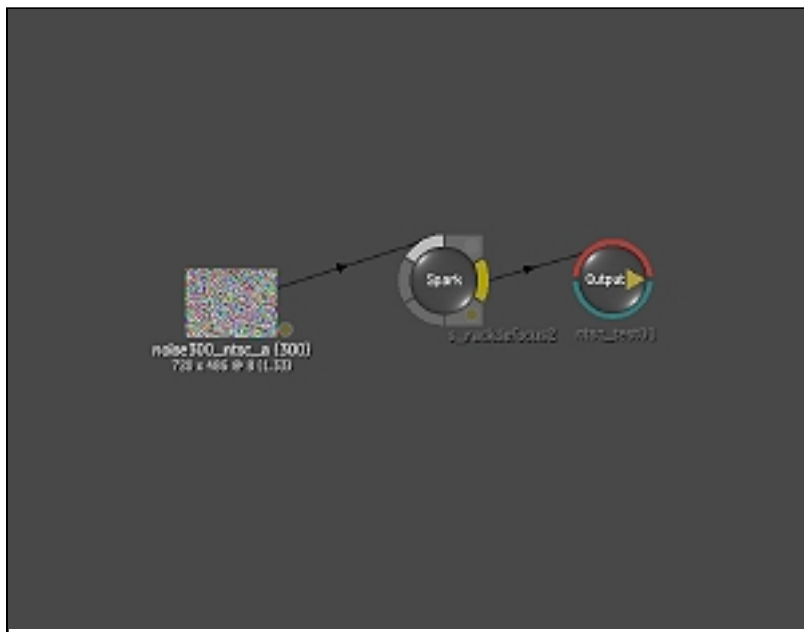


The fxguide crew did various benchmark speed tests using flint version 2009 on the new HP8600 workstation. This is compared to an IBM6217 system running flint version 2009. For historical purposes, this is also compared to an Onyx 2 workstation utilizing the release of inferno 5.3 (onyx2). The inferno system is an Onyx2 IR3 system with 4x400Mhz IP27 processors.

Regarding the benchmarks, each render was run twice to ensure consistency. Batch logging was turned on (with status webpage off) and the start and end times of the batch log were used to total up the duration of the renders.



Test 1A

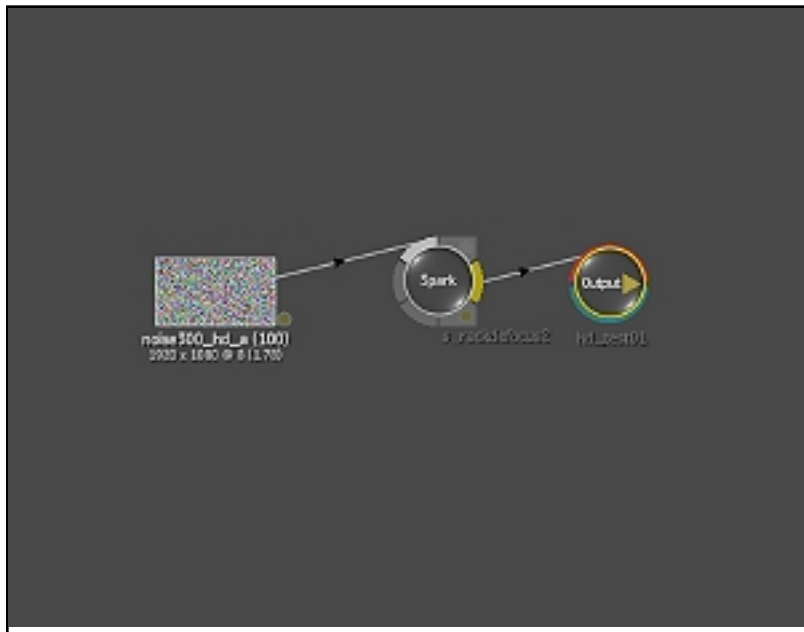
NTSC 300 frame color noise clip feeds Sapphire RackDefocus (default settings)

Onyx2 IR	:58
IBM 6217	:27
HP8600	:13

Test 1B

NTSC 300 frame color noise clip feeds Sapphire RackDefocus (default settings with subpixel set to "YES")

Onyx2 IR	3:12
IBM 6217	:25
HP8600	:12



Test 2A

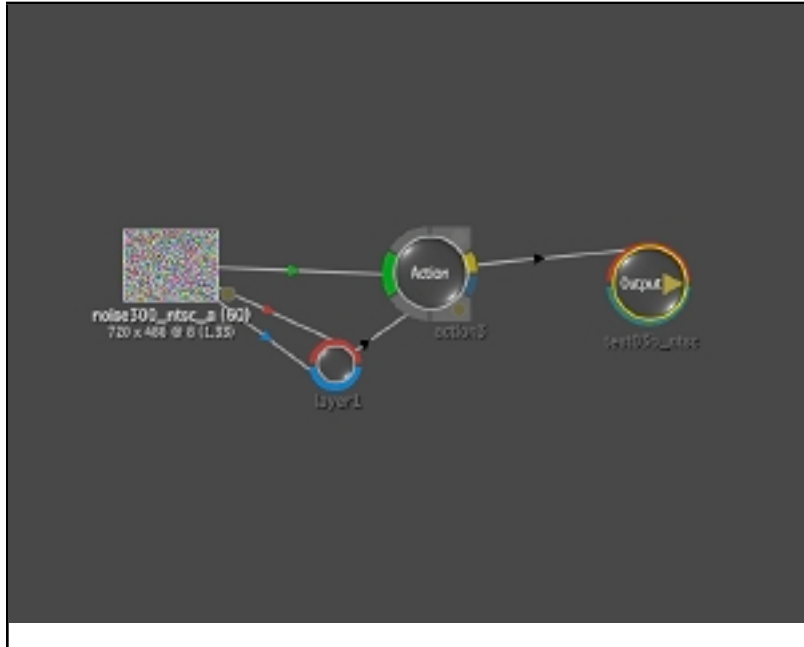
HD1920x1080 100 frame color noise clip feeds Sapphire RackDefocus (default settings)

Onyx2 IR	2:34
IBM 6217	:23
HP8600	:13

Test 2B

HD1920x1080 100 frame color noise clip feeds Sapphire RackDefocus (default settings with subpixel set to "YES")

Onyx2 IR	13:19
IBM 6217	:24
HP8600	:19



Test 4A

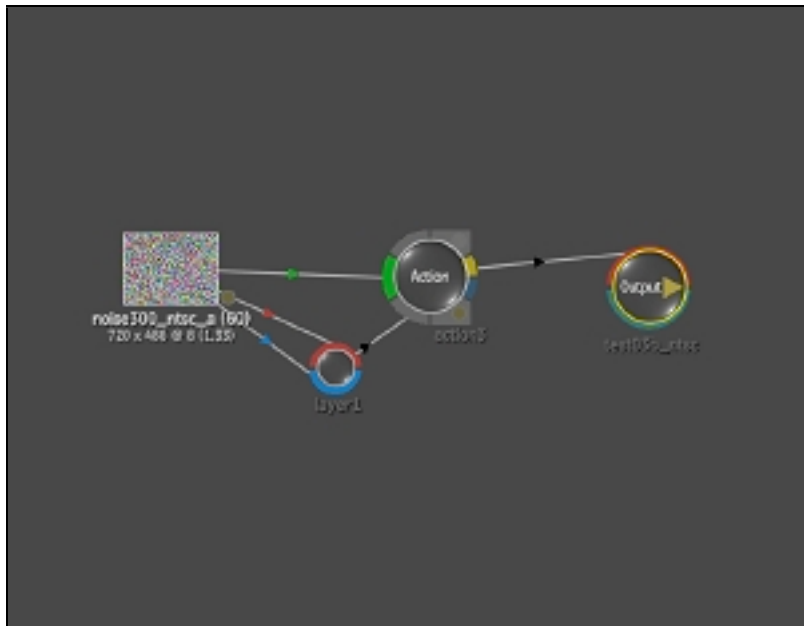
60 frame action render, with 60 frame source clip fed from batch schematic.

Action node: 1 layer/image. 4 Samples.

Layer Key: Standard LUM key, Matte Shrink -6, Suppress Fgd Green -25

Layer Blur: Gaussian Front 10 (blur of 26 for HD render)

Onyx2 IR (NTSC)	:29
IBM 6217 (NTSC)	:46
HP8600 (NTSC)	:32
Onyx2 IR (HD)	3:45
IBM 6217 (HD)	:44
HP8600 (HD)	:30



Test 4B

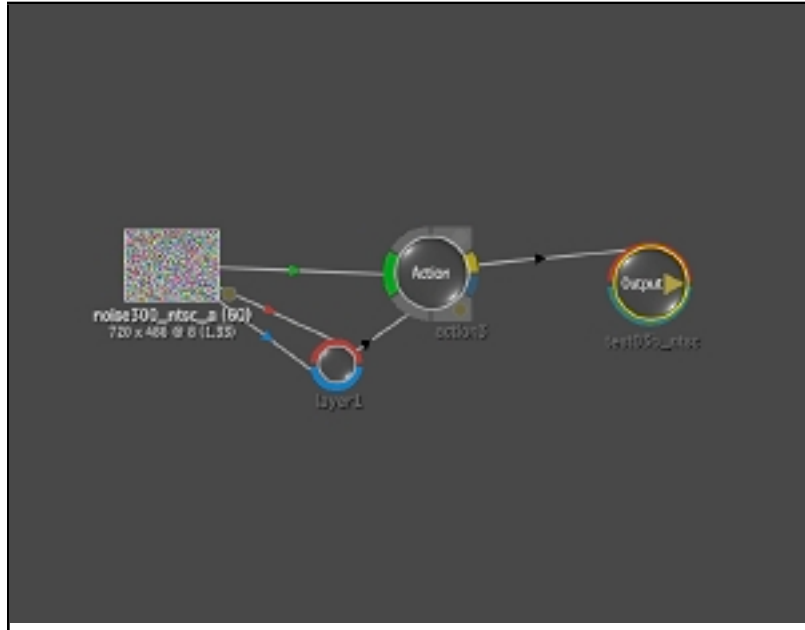
60 frame action render, with 60 frame source clips fed from batch schematic.

Action node: 1 layer/image. 16 Samples.

Layer Key: Standard LUM key, Matte Shrink -6, Suppress Fgd Green -25

Layer Blur: Gaussian Front 10 (blur of 26 for HD render)

Onyx2 IR (NTSC)	:33
IBM 6217 (NTSC)	1:31
HP8600 (NTSC)	1:08
Onyx2 IR (HD)	3:58
IBM 6217 (HD)	1:32
HP8600 (HD)	1:09



Test 4C

60 frame action render, with 60 frame source clips fed from batch schematic.

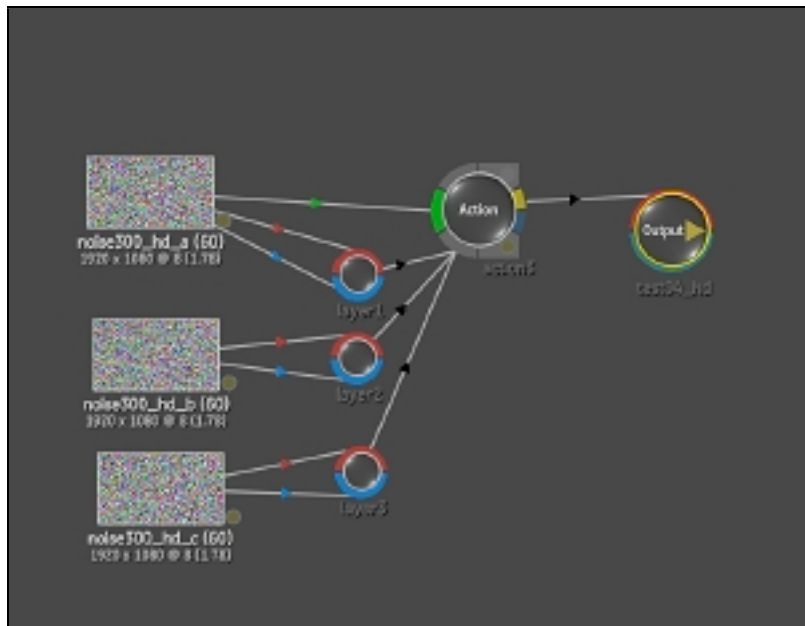
Action node: 1 layer/image. 4 Samples, Texture Off.

Layer Key: Standard LUM key, Matte Shrink -6, Suppress Fgd Green -25

Layer Blur: Gaussian Front 10 (blur of 26 for HD render)

Onyx2 IR (NTSC)	:53
IBM 6217 (NTSC)	1:03
HP8600 (NTSC)	:43

Onyx2 IR (HD)	6:14
IBM 6217 (HD)	1:02
HP8600 (HD)	:43



Test 5A

60 frame action render, with 60 frame source clips fed from batch schematic.

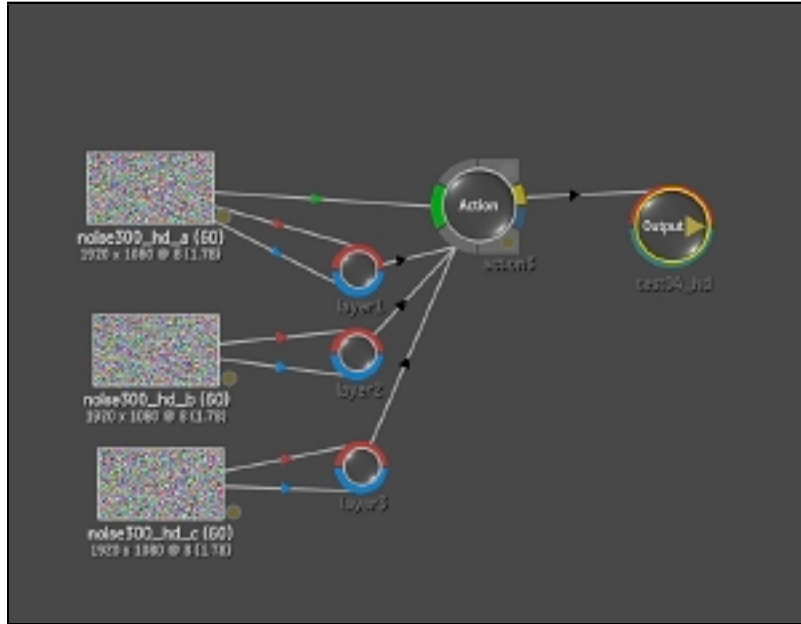
Action node: 3 layers/images. 4 Samples.

Layer Key: Standard LUM key, Matte Shrink -6, Suppress Fgd Green -25

Layer Blur: Gaussian Front 10 (blur of 26 for HD render)

Onyx2 IR (NTSC)	1:39
IBM 6217 (NTSC)	:16
HP8600 (NTSC)	:13

Onyx2 IR (HD)	9:59
IBM 6217 (HD)	1:33
HP8600 (NTSC)	:58



Test 5B

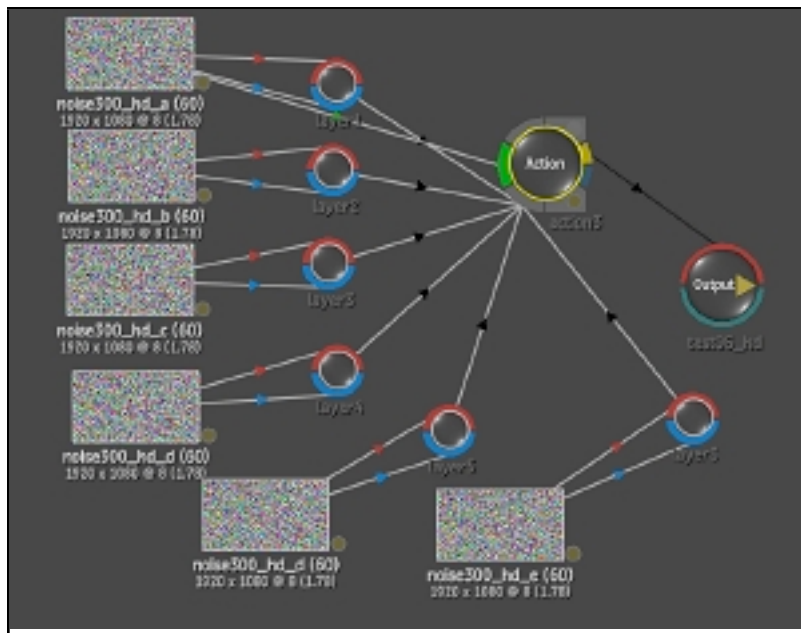
60 frame action render, with 60 frame source clips fed from batch schematic.

Action node: 3 layers/images. 4 Samples, Motion Blur Samples 10

Layer Key: Standard LUM key, Matte Shrink -6, Suppress Fgd Green -25

Layer Blur: Gaussian Front 10

Onyx2 IR (NTSC)	1:45
IBM 6217 (NTSC)	:43
HP8600 (NTSC)	:32
IBM 6217 (HD)	4:16
HP8600 (HD)	3:00



Test 6

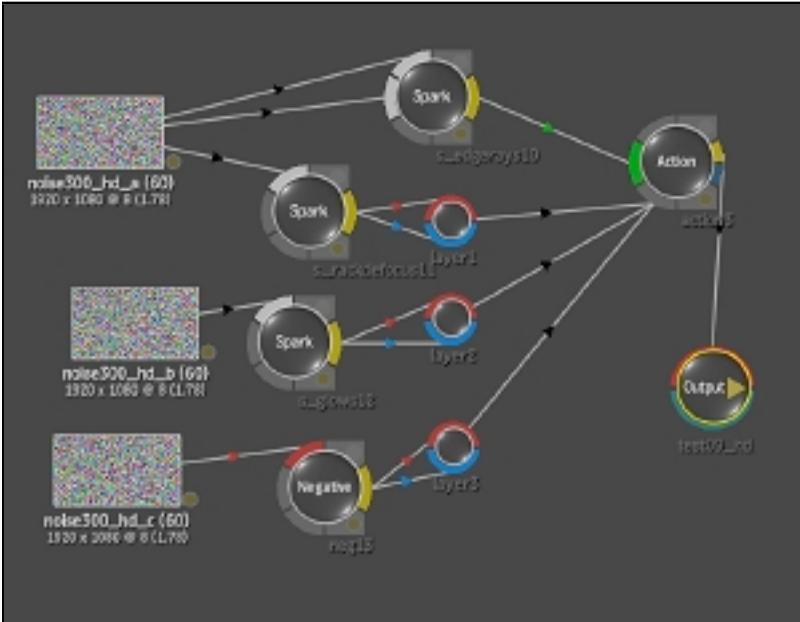
60 frame action render, with 60 frame source clips fed from batch schematic.

Action node: 6 layers/images. 4 Samples, Motion Blur Samples 10

Layer Key: Standard LUM key, Matte Shrink -6, Suppress Fgd Green -25

Layer Blur: Gaussian Front 10 10 (blur of 26 for HD render)

Onyx2 IR (NTSC)	3:06
IBM 6217 (NTSC)	:59
HP8600 (NTSC)	:42
Onyx2 IR (HD)	19:54
IBM 6217 (HD)	5:37
HP8600 (HD)	3:41

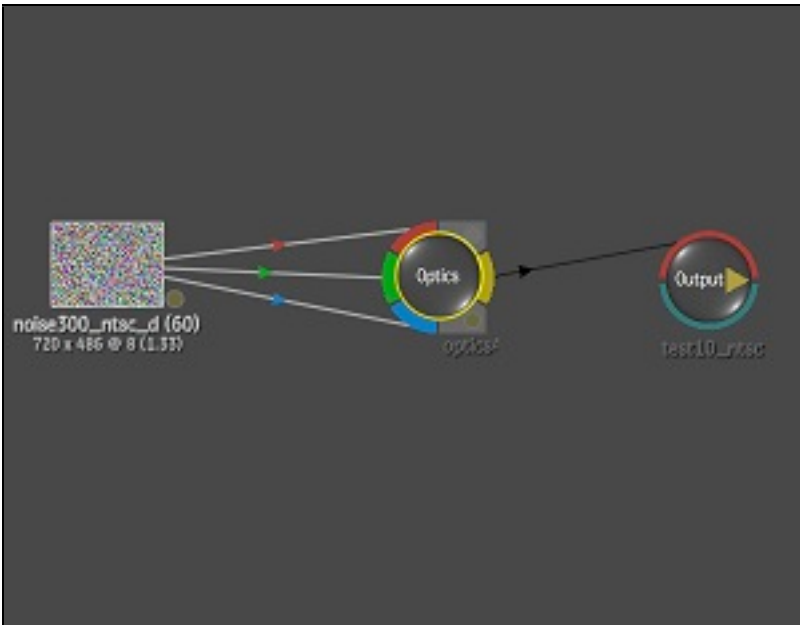


Test 8

30 frame action render, with 60 frame source clips fed from batch schematic.

Action node: 3 layers/images. 4 Samples
Layer Key (all): Standard LUM key, Matte Shrink -6, Suppress Fgd Green -25
Layer Blur (all): Gaussian Front 10 (blur of 26 for HD render)
Bknd Layer: Sapphire EdgeRays, Default Settings +Subpixel = YES
Layer 1: Sapphire RackDefocus, Default Settings
Layer 2: Sapphire Glows, Default Settings
Layer 3: Negative Node

Onyx2 IR (NTSC)	1:20
IBM 6217 (NTSC)	:13
HP8600 (NTSC)	:08
Onyx2 IR (HD)	10:15
IBM 6217 (HD)	1:34
HP8600 (HD)	:47

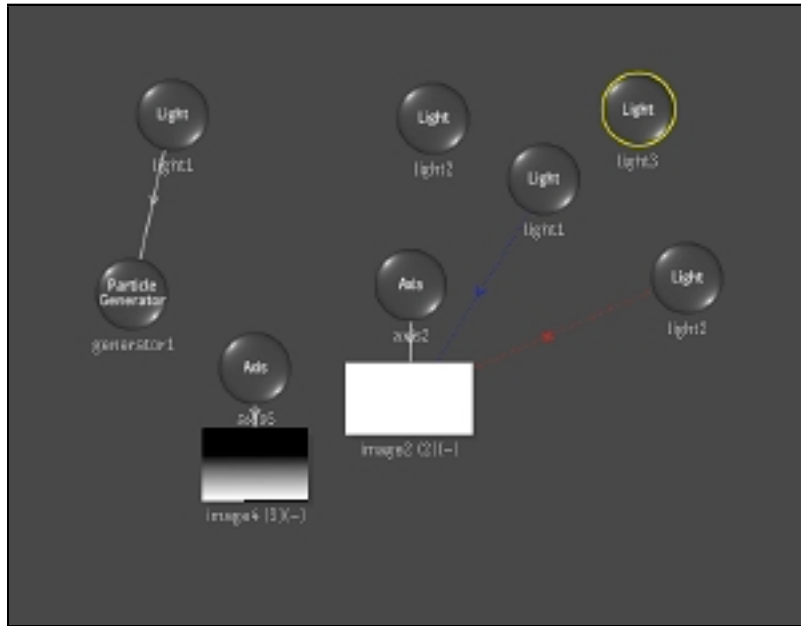


Test 9

60 frame render.

Optics node: Default Settings

Onyx2 IR (NTSC)	1:20
IBM 6217 (NTSC)	:08
HP8600 (NTSC)	:05
Onyx2 IR (HD)	1:40
IBM 6217 (HD)	1:34
HP8600 (HD)	:47



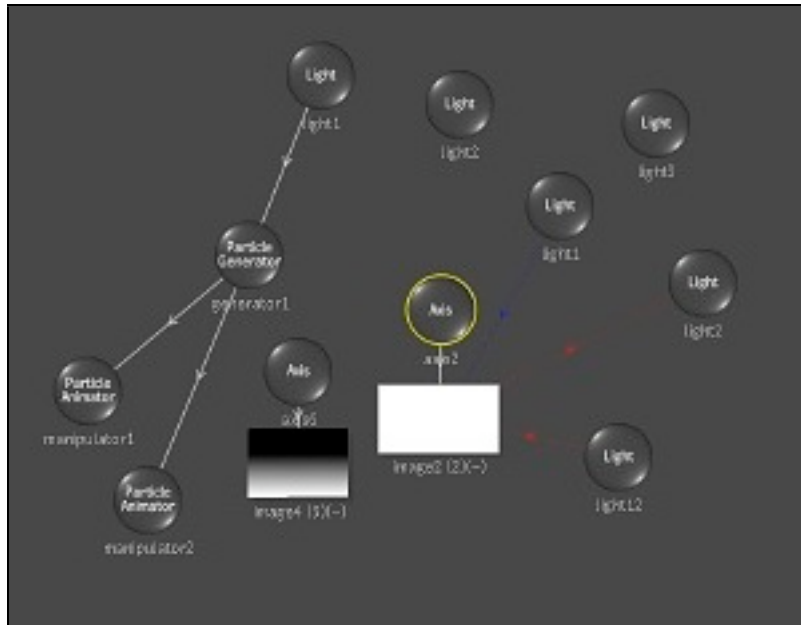
Test 10

90 frame action particle render. All clips single frame, fed directly in action.

Action node: Shading On, 4 Lights, 1 Sample
Particle Generator: Spheres, Number 300 (Constant), Time Steps 2, Lifetime 150

Onyx2 IR (NTSC)	3:52
IBM 6217 (NTSC)	:16
HP8600 (NTSC)	:10

Onyx2 IR (HD)	6:58
IBM 6217 (HD)	:28
HP8600 (HD)	:21



Test 11

90 frame action particle render. All clips single frame, fed directly in action.


Action node: Shading On, 4 Lights
Particle Generator: Spheres, Number 300 (Constant), Time Steps 2, Lifetime 150
Particle Manipulator: transparency = lifetime
Particle Manipulator: speed = $speed * 0.95 + turbulence3(pos * 0.01, 1)$

Action Samples: 4

Onyx2 IR (NTSC)	8:47
IBM 6217 (NTSC)	:33
HP8600 (NTSC)	:22

Action Samples: 4

Onyx2 IR (HD)	27:04
IBM 6217 (HD)	1:17
IBM 8600 (HD)	:53



Test 12
 Filter processing. 100 frames.

Filter 1: Soften_heavy
Filter 2: Emboss_heavy_soft

Onyx2 IR (NTSC)	1:50
IBM 6217 (NTSC)	:07
HP8600 (NTSC)	:04
Onyx2 IR (HD)	5:10
IBM 6217 (HD)	1:18
HP8600 (HD)	:20

Workstation Storage Notes

IBM 6217 Workstation (2 x IR73 chassis)

```
root@ausable ~]# /usr/discreet/sw/tools/stone_test -r -R 0 -f HDTV
Partition /dev/swr00 capacity = 143370648 per disk, 28 data disks
frame = 6221824 bytes (12152 blocks) frame_interval = 434
4 concurrent I/O requests, 300 frames:
Head, forward : 745.26 MB/S 125.6 frames/sec
```

HP 8600 Workstation (1 x XR chassis)

```
[root@smoke log]# /usr/discreet/sw/tools/stone_test -r -R 0 -f HDTV
Partition /dev/swr00 capacity = 362346075 per disk, 2 data disks
frame = 6225920 bytes (1520 blocks) frame_interval = 760
4 concurrent I/O requests, 300 frames:
Head, forward : 768.77 MB/S 129.5 frames/sec
```

Test Name	IBM6217	HP8600	Times Faster (1.00 = IBM6217)
ntsc_test01A	0:00:27	0:00:13	2.08
hd_test02A	0:00:23	0:00:13	1.77
ntsc_test01B	0:00:25	0:00:12	2.08
hd_test02B	0:00:24	0:00:21	1.14
hd_test3	0:00:05	N/A	
ntsc_test3	0:00:03	N/A	
test4A_ntsc	0:00:46	0:00:32	1.44
test4B_ntsc	0:01:31	0:01:08	1.34
test4A_hd	0:00:44	0:00:30	1.47
test4B_hd	0:01:32	0:01:09	1.33
test4C_hd	0:01:02	0:00:43	1.44
test4C_ntsc	0:01:03	0:00:43	1.47
test05A_ntsc	0:00:16	0:00:13	1.23
test05A_hd	0:01:33	0:00:58	1.60
test05B_ntsc	0:00:43	0:00:32	1.34
test05B_hd	0:04:16	0:03:00	1.42
test06_hd	0:05:37	0:03:41	1.52
test06_ntsc	0:00:59	0:00:42	1.40
test08_ntsc	0:00:13	0:00:08	1.62
test08_hd	0:01:34	0:00:47	2.00
test09_ntsc	0:00:08	0:00:05	1.60
test09_hd	0:00:42	0:00:23	1.83
test10_hd	0:00:28	0:00:21	1.33
test10_ntsc	0:00:16	0:00:10	1.60
test11_hd	0:01:17	0:00:53	1.45
test11_ntsc	0:00:33	0:00:22	1.50
test12_hd	0:01:18	0:00:20	3.90
test12_ntsc	0:00:07	0:00:04	1.75