

# Brightness

Windows - Processor: Intel(R) Core(TM) i7-8665U CPU @ 1.90GHz 2.11 GHz

## Image cat.jpg

### Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	1370	cat.jpg	--	15/06/2021 12:29:39
Brightness	1419	cat.jpg	--	15/06/2021 12:29:52
Brightness	1421	cat.jpg	--	15/06/2021 12:30:00
Brightness	1309	cat.jpg	--	15/06/2021 12:30:07
Brightness	1332	cat.jpg	--	15/06/2021 12:30:15
Brightness	1378	cat.jpg	--	15/06/2021 12:30:22
Brightness	1282	cat.jpg	--	15/06/2021 12:30:29
Brightness	1387	cat.jpg	--	15/06/2021 12:30:37
Brightness	1316	cat.jpg	--	15/06/2021 12:30:44
Brightness	1308	cat.jpg	--	15/06/2021 12:30:52

Average: 1352,2

### MultiThread

#### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	1295	cat.jpg	2	15/06/2021 07:49:31
Brightness	1260	cat.jpg	2	15/06/2021 07:49:40
Brightness	1238	cat.jpg	2	15/06/2021 07:49:48
Brightness	1156	cat.jpg	2	15/06/2021 07:49:56
Brightness	1031	cat.jpg	2	15/06/2021 07:50:04
Brightness	1215	cat.jpg	2	15/06/2021 07:50:12
Brightness	1253	cat.jpg	2	15/06/2021 07:50:20
Brightness	1196	cat.jpg	2	15/06/2021 07:50:31
Brightness	1209	cat.jpg	2	15/06/2021 07:50:38
Brightness	1215	cat.jpg	2	15/06/2021 07:50:46

Average: 1206,8

#### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	1190	cat.jpg	4	15/06/2021 07:50:55
Brightness	1177	cat.jpg	4	15/06/2021 07:51:06
Brightness	1235	cat.jpg	4	15/06/2021 07:51:15
Brightness	1192	cat.jpg	4	15/06/2021 07:51:25
Brightness	1163	cat.jpg	4	15/06/2021 07:51:34
Brightness	1209	cat.jpg	4	15/06/2021 07:51:43
Brightness	1210	cat.jpg	4	15/06/2021 07:51:53
Brightness	1293	cat.jpg	4	15/06/2021 07:52:00
Brightness	1233	cat.jpg	4	15/06/2021 07:52:08
Brightness	1227	cat.jpg	4	15/06/2021 07:52:16

Average: 1212,9

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	1198	cat.jpg	8	15/06/2021 07:52:46
Brightness	1305	cat.jpg	8	15/06/2021 07:52:57
Brightness	1055	cat.jpg	8	15/06/2021 07:53:06
Brightness	1119	cat.jpg	8	15/06/2021 07:53:13
Brightness	1289	cat.jpg	8	15/06/2021 07:53:23
Brightness	1272	cat.jpg	8	15/06/2021 07:53:30
Brightness	1199	cat.jpg	8	15/06/2021 07:53:39
Brightness	1230	cat.jpg	8	15/06/2021 07:53:49
Brightness	1049	cat.jpg	8	15/06/2021 07:53:57
Brightness	1264	cat.jpg	8	15/06/2021 07:54:05

Average: 1198

#### 12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	1213	cat.jpg	12	15/06/2021 07:54:12
Brightness	1231	cat.jpg	12	15/06/2021 07:54:20
Brightness	1116	cat.jpg	12	15/06/2021 07:54:27
Brightness	1261	cat.jpg	12	15/06/2021 07:54:35
Brightness	1281	cat.jpg	12	15/06/2021 07:54:42

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	1217	cat.jpg	12	15/06/2021 07:54:50
Brightness	1220	cat.jpg	12	15/06/2021 07:54:57
Brightness	1119	cat.jpg	12	15/06/2021 07:55:05
Brightness	1239	cat.jpg	12	15/06/2021 07:55:13
Brightness	1179	cat.jpg	12	15/06/2021 07:55:20

Average: 1207,6

## Threadpool

### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	54	cat.jpg	2	15/06/2021 12:44:21
Brightness	54	cat.jpg	2	15/06/2021 12:44:30
Brightness	53	cat.jpg	2	15/06/2021 12:44:38
Brightness	78	cat.jpg	2	15/06/2021 12:44:46
Brightness	52	cat.jpg	2	15/06/2021 12:45:00
Brightness	51	cat.jpg	2	15/06/2021 12:45:08
Brightness	53	cat.jpg	2	15/06/2021 12:45:17
Brightness	70	cat.jpg	2	15/06/2021 12:45:24
Brightness	53	cat.jpg	2	15/06/2021 12:45:32
Brightness	38	cat.jpg	2	15/06/2021 12:45:40

Average: 55,6

### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	54	cat.jpg	4	15/06/2021 12:46:29
Brightness	54	cat.jpg	4	15/06/2021 12:46:37
Brightness	54	cat.jpg	4	15/06/2021 12:46:45
Brightness	48	cat.jpg	4	15/06/2021 12:46:55
Brightness	69	cat.jpg	4	15/06/2021 12:47:02
Brightness	54	cat.jpg	4	15/06/2021 12:47:11
Brightness	69	cat.jpg	4	15/06/2021 12:47:18
Brightness	36	cat.jpg	4	15/06/2021 12:47:26
Brightness	62	cat.jpg	4	15/06/2021 12:47:40

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	38	cat.jpg	4	15/06/2021 12:47:49

Average: 53,8

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	53	cat.jpg	8	15/06/2021 12:47:57
Brightness	54	cat.jpg	8	15/06/2021 12:48:05
Brightness	55	cat.jpg	8	15/06/2021 12:48:12
Brightness	54	cat.jpg	8	15/06/2021 12:48:20
Brightness	54	cat.jpg	8	15/06/2021 12:48:28
Brightness	67	cat.jpg	8	15/06/2021 12:48:37
Brightness	62	cat.jpg	8	15/06/2021 12:48:45
Brightness	69	cat.jpg	8	15/06/2021 12:48:54
Brightness	69	cat.jpg	8	15/06/2021 12:49:03
Brightness	53	cat.jpg	8	15/06/2021 12:49:11

Average: 59

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	101	cat.jpg	12	15/06/2021 12:49:19
Brightness	47	cat.jpg	12	15/06/2021 12:49:26
Brightness	69	cat.jpg	12	15/06/2021 12:49:34
Brightness	69	cat.jpg	12	15/06/2021 12:49:41
Brightness	54	cat.jpg	12	15/06/2021 12:49:49
Brightness	78	cat.jpg	12	15/06/2021 12:49:56
Brightness	53	cat.jpg	12	15/06/2021 12:50:04
Brightness	63	cat.jpg	12	15/06/2021 12:50:11
Brightness	62	cat.jpg	12	15/06/2021 12:50:20
Brightness	78	cat.jpg	12	15/06/2021 12:50:28

Average: 67,4

Image turtle.jpg

Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	80	turtle.jpg	--	15/06/2021 12:31:22
Brightness	84	turtle.jpg	--	15/06/2021 12:31:28
Brightness	69	turtle.jpg	--	15/06/2021 12:31:33
Brightness	78	turtle.jpg	--	15/06/2021 12:31:38
Brightness	85	turtle.jpg	--	15/06/2021 12:31:44
Brightness	77	turtle.jpg	--	15/06/2021 12:31:49
Brightness	87	turtle.jpg	--	15/06/2021 12:31:55
Brightness	83	turtle.jpg	--	15/06/2021 12:32:00
Brightness	85	turtle.jpg	--	15/06/2021 12:32:15
Brightness	93	turtle.jpg	--	15/06/2021 12:32:19

Average: 82,1

## MultiThread

### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	95	turtle.jpg	2	15/06/2021 07:43:48
Brightness	81	turtle.jpg	2	15/06/2021 07:43:58
Brightness	80	turtle.jpg	2	15/06/2021 07:44:04
Brightness	86	turtle.jpg	2	15/06/2021 07:44:10
Brightness	79	turtle.jpg	2	15/06/2021 07:44:16
Brightness	90	turtle.jpg	2	15/06/2021 07:44:46
Brightness	88	turtle.jpg	2	15/06/2021 07:45:01
Brightness	85	turtle.jpg	2	15/06/2021 07:45:07
Brightness	78	turtle.jpg	2	15/06/2021 07:45:12
Brightness	77	turtle.jpg	2	15/06/2021 07:45:20

Average: 83,9

### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	90	turtle.jpg	4	15/06/2021 07:45:25
Brightness	84	turtle.jpg	4	15/06/2021 07:45:31
Brightness	91	turtle.jpg	4	15/06/2021 07:45:36
Brightness	92	turtle.jpg	4	15/06/2021 07:45:41

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	83	turtle.jpg	4	15/06/2021 07:45:46
Brightness	91	turtle.jpg	4	15/06/2021 07:45:57
Brightness	87	turtle.jpg	4	15/06/2021 07:46:03
Brightness	71	turtle.jpg	4	15/06/2021 07:46:09
Brightness	98	turtle.jpg	4	15/06/2021 07:46:15
Brightness	95	turtle.jpg	4	15/06/2021 07:46:20

Average: 88,2

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	100	turtle.jpg	8	15/06/2021 07:46:25
Brightness	100	turtle.jpg	8	15/06/2021 07:46:30
Brightness	100	turtle.jpg	8	15/06/2021 07:46:37
Brightness	98	turtle.jpg	8	15/06/2021 07:46:42
Brightness	78	turtle.jpg	8	15/06/2021 07:46:48
Brightness	84	turtle.jpg	8	15/06/2021 07:46:55
Brightness	106	turtle.jpg	8	15/06/2021 07:47:00
Brightness	98	turtle.jpg	8	15/06/2021 07:47:06
Brightness	88	turtle.jpg	8	15/06/2021 07:47:12
Brightness	94	turtle.jpg	8	15/06/2021 07:47:17

Average: 94,6

#### 12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	83	turtle.jpg	12	15/06/2021 07:47:24
Brightness	95	turtle.jpg	12	15/06/2021 07:47:29
Brightness	109	turtle.jpg	12	15/06/2021 07:47:35
Brightness	98	turtle.jpg	12	15/06/2021 07:47:40
Brightness	107	turtle.jpg	12	15/06/2021 07:47:46
Brightness	95	turtle.jpg	12	15/06/2021 07:47:52
Brightness	95	turtle.jpg	12	15/06/2021 07:47:57
Brightness	83	turtle.jpg	12	15/06/2021 07:48:03
Brightness	112	turtle.jpg	12	15/06/2021 07:48:10

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	103	turtle.jpg	12	15/06/2021 07:48:16

Average: 98

## Threadpool

### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	15	turtle.jpg	2	15/06/2021 12:43:19
Brightness	0	turtle.jpg	2	15/06/2021 12:43:25
Brightness	16	turtle.jpg	2	15/06/2021 12:43:32
Brightness	7	turtle.jpg	2	15/06/2021 12:43:37
Brightness	0	turtle.jpg	2	15/06/2021 12:43:43
Brightness	15	turtle.jpg	2	15/06/2021 12:43:49
Brightness	0	turtle.jpg	2	15/06/2021 12:43:54
Brightness	0	turtle.jpg	2	15/06/2021 12:44:00
Brightness	0	turtle.jpg	2	15/06/2021 12:44:06
Brightness	16	turtle.jpg	2	15/06/2021 12:44:11

Average: 6,9

### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	0	turtle.jpg	4	15/06/2021 12:51:26
Brightness	0	turtle.jpg	4	15/06/2021 12:51:32
Brightness	16	turtle.jpg	4	15/06/2021 12:51:37
Brightness	6	turtle.jpg	4	15/06/2021 12:51:43
Brightness	0	turtle.jpg	4	15/06/2021 12:51:48
Brightness	0	turtle.jpg	4	15/06/2021 12:51:53
Brightness	6	turtle.jpg	4	15/06/2021 12:51:59
Brightness	0	turtle.jpg	4	15/06/2021 12:52:04
Brightness	16	turtle.jpg	4	15/06/2021 12:52:10
Brightness	0	turtle.jpg	4	15/06/2021 12:52:15

Average: 4,4

### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	15	turtle.jpg	8	15/06/2021 12:52:23
Brightness	21	turtle.jpg	8	15/06/2021 12:52:30
Brightness	15	turtle.jpg	8	15/06/2021 12:52:36
Brightness	15	turtle.jpg	8	15/06/2021 12:52:43
Brightness	18	turtle.jpg	8	15/06/2021 12:52:50
Brightness	31	turtle.jpg	8	15/06/2021 12:52:55
Brightness	21	turtle.jpg	8	15/06/2021 12:53:00
Brightness	17	turtle.jpg	8	15/06/2021 12:53:06
Brightness	22	turtle.jpg	8	15/06/2021 12:53:16
Brightness	38	turtle.jpg	8	15/06/2021 12:53:22

Average: 21,3

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	7	turtle.jpg	12	15/06/2021 12:53:55
Brightness	16	turtle.jpg	12	15/06/2021 12:54:01
Brightness	22	turtle.jpg	12	15/06/2021 12:54:07
Brightness	15	turtle.jpg	12	15/06/2021 12:54:13
Brightness	16	turtle.jpg	12	15/06/2021 12:54:18
Brightness	38	turtle.jpg	12	15/06/2021 12:54:24
Brightness	18	turtle.jpg	12	15/06/2021 12:54:31
Brightness	22	turtle.jpg	12	15/06/2021 12:54:41
Brightness	47	turtle.jpg	12	15/06/2021 12:54:47
Brightness	16	turtle.jpg	12	15/06/2021 12:54:52

Average: 21,7

Image tinyCar.jpg

Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	35	tinyCar.jpg	--	15/06/2021 12:32:27
Brightness	27	tinyCar.jpg	--	15/06/2021 12:32:32
Brightness	36	tinyCar.jpg	--	15/06/2021 12:32:37



Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	38	tinyCar.jpg	--	15/06/2021 12:32:41
Brightness	43	tinyCar.jpg	--	15/06/2021 12:32:46
Brightness	27	tinyCar.jpg	--	15/06/2021 12:32:52
Brightness	38	tinyCar.jpg	--	15/06/2021 12:32:56
Brightness	26	tinyCar.jpg	--	15/06/2021 12:33:01
Brightness	31	tinyCar.jpg	--	15/06/2021 12:33:06
Brightness	32	tinyCar.jpg	--	15/06/2021 12:33:11

Average: 33,3

MultiThread

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	29	tinyCar.jpg	2	15/06/2021 07:56:35
Brightness	31	tinyCar.jpg	2	15/06/2021 07:56:41
Brightness	33	tinyCar.jpg	2	15/06/2021 07:56:46
Brightness	18	tinyCar.jpg	2	15/06/2021 07:56:51
Brightness	30	tinyCar.jpg	2	15/06/2021 07:56:55
Brightness	33	tinyCar.jpg	2	15/06/2021 07:57:00
Brightness	29	tinyCar.jpg	2	15/06/2021 07:57:05
Brightness	32	tinyCar.jpg	2	15/06/2021 07:57:10
Brightness	20	tinyCar.jpg	2	15/06/2021 07:57:15
Brightness	31	tinyCar.jpg	2	15/06/2021 07:57:20

Average: 28,6

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	28	tinyCar.jpg	4	15/06/2021 07:57:28
Brightness	24	tinyCar.jpg	4	15/06/2021 07:57:33
Brightness	24	tinyCar.jpg	4	15/06/2021 07:57:38
Brightness	26	tinyCar.jpg	4	15/06/2021 07:57:44
Brightness	24	tinyCar.jpg	4	15/06/2021 07:57:49
Brightness	23	tinyCar.jpg	4	15/06/2021 07:57:54
Brightness	25	tinyCar.jpg	4	15/06/2021 07:57:59

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	23	tinyCar.jpg	4	15/06/2021 07:58:05
Brightness	16	tinyCar.jpg	4	15/06/2021 07:58:10
Brightness	24	tinyCar.jpg	4	15/06/2021 07:58:15

Average: 23,7

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	24	tinyCar.jpg	8	15/06/2021 07:58:21
Brightness	28	tinyCar.jpg	8	15/06/2021 07:58:33
Brightness	28	tinyCar.jpg	8	15/06/2021 07:58:41
Brightness	27	tinyCar.jpg	8	15/06/2021 07:58:49
Brightness	25	tinyCar.jpg	8	15/06/2021 07:58:54
Brightness	24	tinyCar.jpg	8	15/06/2021 07:59:00
Brightness	25	tinyCar.jpg	8	15/06/2021 07:59:05
Brightness	32	tinyCar.jpg	8	15/06/2021 07:59:11
Brightness	23	tinyCar.jpg	8	15/06/2021 07:59:16
Brightness	24	tinyCar.jpg	8	15/06/2021 07:59:23

Average: 26

#### 12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	37	tinyCar.jpg	12	15/06/2021 07:59:28
Brightness	36	tinyCar.jpg	12	15/06/2021 07:59:33
Brightness	37	tinyCar.jpg	12	15/06/2021 07:59:38
Brightness	26	tinyCar.jpg	12	15/06/2021 07:59:43
Brightness	46	tinyCar.jpg	12	15/06/2021 07:59:48
Brightness	36	tinyCar.jpg	12	15/06/2021 07:59:53
Brightness	42	tinyCar.jpg	12	15/06/2021 07:59:58
Brightness	25	tinyCar.jpg	12	15/06/2021 08:00:04
Brightness	37	tinyCar.jpg	12	15/06/2021 08:00:08
Brightness	41	tinyCar.jpg	12	15/06/2021 08:00:15

Average: 36,3

#### Threadpool

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	0	tinyCar.jpg	2	15/06/2021 12:55:59
Brightness	0	tinyCar.jpg	2	15/06/2021 12:56:04
Brightness	0	tinyCar.jpg	2	15/06/2021 12:56:09
Brightness	0	tinyCar.jpg	2	15/06/2021 12:56:14
Brightness	0	tinyCar.jpg	2	15/06/2021 12:56:19
Brightness	0	tinyCar.jpg	2	15/06/2021 12:56:29
Brightness	0	tinyCar.jpg	2	15/06/2021 12:56:34
Brightness	5	tinyCar.jpg	2	15/06/2021 12:56:41
Brightness	0	tinyCar.jpg	2	15/06/2021 12:56:49
Brightness	15	tinyCar.jpg	2	15/06/2021 12:56:54

Average: 2

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	15	tinyCar.jpg	4	15/06/2021 12:57:01
Brightness	0	tinyCar.jpg	4	15/06/2021 12:57:06
Brightness	0	tinyCar.jpg	4	15/06/2021 12:57:11
Brightness	0	tinyCar.jpg	4	15/06/2021 12:57:16
Brightness	15	tinyCar.jpg	4	15/06/2021 12:57:22
Brightness	16	tinyCar.jpg	4	15/06/2021 12:57:27
Brightness	15	tinyCar.jpg	4	15/06/2021 12:57:33
Brightness	0	tinyCar.jpg	4	15/06/2021 12:57:40
Brightness	0	tinyCar.jpg	4	15/06/2021 12:57:45
Brightness	0	tinyCar.jpg	4	15/06/2021 12:57:50

Average: 6,1

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	0	tinyCar.jpg	8	15/06/2021 12:57:58
Brightness	0	tinyCar.jpg	8	15/06/2021 12:58:24
Brightness	15	tinyCar.jpg	8	15/06/2021 12:58:35
Brightness	15	tinyCar.jpg	8	15/06/2021 12:58:41

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	0	tinyCar.jpg	8	15/06/2021 12:58:47
Brightness	0	tinyCar.jpg	8	15/06/2021 12:58:53
Brightness	0	tinyCar.jpg	8	15/06/2021 12:58:59
Brightness	0	tinyCar.jpg	8	15/06/2021 12:59:04
Brightness	0	tinyCar.jpg	8	15/06/2021 12:59:09
Brightness	16	tinyCar.jpg	8	15/06/2021 12:59:15

Average: 4,6

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	0	tinyCar.jpg	12	15/06/2021 01:00:10
Brightness	16	tinyCar.jpg	12	15/06/2021 01:00:15
Brightness	0	tinyCar.jpg	12	15/06/2021 01:00:21
Brightness	0	tinyCar.jpg	12	15/06/2021 01:00:26
Brightness	0	tinyCar.jpg	12	15/06/2021 01:00:31
Brightness	0	tinyCar.jpg	12	15/06/2021 01:00:36
Brightness	0	tinyCar.jpg	12	15/06/2021 01:00:41
Brightness	0	tinyCar.jpg	12	15/06/2021 01:00:46
Brightness	0	tinyCar.jpg	12	15/06/2021 01:00:51
Brightness	0	tinyCar.jpg	12	15/06/2021 01:00:57

Average: 1,6

Image tinyCat.jpg

Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	66	tinyCat.jpg	--	15/06/2021 12:33:20
Brightness	69	tinyCat.jpg	--	15/06/2021 12:33:24
Brightness	57	tinyCat.jpg	--	15/06/2021 12:33:29
Brightness	66	tinyCat.jpg	--	15/06/2021 12:33:33
Brightness	69	tinyCat.jpg	--	15/06/2021 12:33:41
Brightness	61	tinyCat.jpg	--	15/06/2021 12:33:45
Brightness	71	tinyCat.jpg	--	15/06/2021 12:33:50

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	69	tinyCat.jpg	--	15/06/2021 12:33:57
Brightness	54	tinyCat.jpg	--	15/06/2021 12:34:02
Brightness	70	tinyCat.jpg	--	15/06/2021 12:34:08

Average: 65,2

## MultiThread

### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	49	tinyCat.jpg	2	15/06/2021 08:01:18
Brightness	60	tinyCat.jpg	2	15/06/2021 08:01:23
Brightness	59	tinyCat.jpg	2	15/06/2021 08:01:29
Brightness	57	tinyCat.jpg	2	15/06/2021 08:01:34
Brightness	56	tinyCat.jpg	2	15/06/2021 08:01:40
Brightness	64	tinyCat.jpg	2	15/06/2021 08:01:45
Brightness	58	tinyCat.jpg	2	15/06/2021 08:01:53
Brightness	55	tinyCat.jpg	2	15/06/2021 08:01:58
Brightness	57	tinyCat.jpg	2	15/06/2021 08:02:03
Brightness	67	tinyCat.jpg	2	15/06/2021 08:02:08

Average: 58,2

### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	54	tinyCat.jpg	4	15/06/2021 08:02:27
Brightness	49	tinyCat.jpg	4	15/06/2021 08:02:31
Brightness	62	tinyCat.jpg	4	15/06/2021 08:02:38
Brightness	56	tinyCat.jpg	4	15/06/2021 08:02:43
Brightness	54	tinyCat.jpg	4	15/06/2021 08:02:48
Brightness	59	tinyCat.jpg	4	15/06/2021 08:02:54
Brightness	56	tinyCat.jpg	4	15/06/2021 08:02:59
Brightness	45	tinyCat.jpg	4	15/06/2021 08:03:04
Brightness	49	tinyCat.jpg	4	15/06/2021 08:03:09
Brightness	70	tinyCat.jpg	4	15/06/2021 08:03:14

Average: 55,4

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	56	tinyCat.jpg	8	15/06/2021 08:03:20
Brightness	54	tinyCat.jpg	8	15/06/2021 08:03:26
Brightness	52	tinyCat.jpg	8	15/06/2021 08:03:31
Brightness	54	tinyCat.jpg	8	15/06/2021 08:03:35
Brightness	54	tinyCat.jpg	8	15/06/2021 08:03:41
Brightness	50	tinyCat.jpg	8	15/06/2021 08:03:46
Brightness	55	tinyCat.jpg	8	15/06/2021 08:03:51
Brightness	54	tinyCat.jpg	8	15/06/2021 08:03:56
Brightness	53	tinyCat.jpg	8	15/06/2021 08:04:01
Brightness	54	tinyCat.jpg	8	15/06/2021 08:04:06

Average: 53,6

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	58	tinyCat.jpg	12	15/06/2021 08:04:12
Brightness	60	tinyCat.jpg	12	15/06/2021 08:04:18
Brightness	76	tinyCat.jpg	12	15/06/2021 08:04:24
Brightness	61	tinyCat.jpg	12	15/06/2021 08:04:30
Brightness	57	tinyCat.jpg	12	15/06/2021 08:04:35
Brightness	60	tinyCat.jpg	12	15/06/2021 08:04:40
Brightness	47	tinyCat.jpg	12	15/06/2021 08:04:45
Brightness	77	tinyCat.jpg	12	15/06/2021 08:04:51
Brightness	66	tinyCat.jpg	12	15/06/2021 08:04:56
Brightness	61	tinyCat.jpg	12	15/06/2021 08:05:01

Average: 62,3

Threadpool

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	16	tinyCat.jpg	2	15/06/2021 01:01:25
Brightness	16	tinyCat.jpg	2	15/06/2021 01:01:30
Brightness	0	tinyCat.jpg	2	15/06/2021 01:01:35

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	0	tinyCat.jpg	2	15/06/2021 01:01:40
Brightness	16	tinyCat.jpg	2	15/06/2021 01:01:46
Brightness	16	tinyCat.jpg	2	15/06/2021 01:01:54
Brightness	0	tinyCat.jpg	2	15/06/2021 01:02:01
Brightness	16	tinyCat.jpg	2	15/06/2021 01:02:06
Brightness	0	tinyCat.jpg	2	15/06/2021 01:02:11
Brightness	16	tinyCat.jpg	2	15/06/2021 01:02:17

Average: 9,6

#### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	15	tinyCat.jpg	4	15/06/2021 01:02:23
Brightness	15	tinyCat.jpg	4	15/06/2021 01:02:28
Brightness	0	tinyCat.jpg	4	15/06/2021 01:02:33
Brightness	16	tinyCat.jpg	4	15/06/2021 01:02:39
Brightness	0	tinyCat.jpg	4	15/06/2021 01:02:43
Brightness	0	tinyCat.jpg	4	15/06/2021 01:02:48
Brightness	0	tinyCat.jpg	4	15/06/2021 01:02:54
Brightness	15	tinyCat.jpg	4	15/06/2021 01:02:59
Brightness	0	tinyCat.jpg	4	15/06/2021 01:03:04
Brightness	0	tinyCat.jpg	4	15/06/2021 01:03:10

Average: 6,1

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	2	tinyCat.jpg	8	15/06/2021 01:03:17
Brightness	7	tinyCat.jpg	8	15/06/2021 01:03:22
Brightness	0	tinyCat.jpg	8	15/06/2021 01:03:27
Brightness	16	tinyCat.jpg	8	15/06/2021 01:03:32
Brightness	16	tinyCat.jpg	8	15/06/2021 01:03:37
Brightness	0	tinyCat.jpg	8	15/06/2021 01:03:44
Brightness	16	tinyCat.jpg	8	15/06/2021 01:03:48
Brightness	7	tinyCat.jpg	8	15/06/2021 01:03:54

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	16	tinyCat.jpg	8	15/06/2021 01:03:59
Brightness	0	tinyCat.jpg	8	15/06/2021 01:04:04

Average: 8

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	0	tinyCat.jpg	12	15/06/2021 01:04:10
Brightness	0	tinyCat.jpg	12	15/06/2021 01:04:15
Brightness	0	tinyCat.jpg	12	15/06/2021 01:04:20
Brightness	0	tinyCat.jpg	12	15/06/2021 01:04:24
Brightness	16	tinyCat.jpg	12	15/06/2021 01:04:29
Brightness	2	tinyCat.jpg	12	15/06/2021 01:04:34
Brightness	7	tinyCat.jpg	12	15/06/2021 01:04:40
Brightness	0	tinyCat.jpg	12	15/06/2021 01:04:48
Brightness	0	tinyCat.jpg	12	15/06/2021 01:04:53
Brightness	0	tinyCat.jpg	12	15/06/2021 01:04:58

Average: 2,5

Image ultraHd.jpg

Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	4398	ultraHd.jpg	--	15/06/2021 12:34:26
Brightness	4558	ultraHd.jpg	--	15/06/2021 12:34:39
Brightness	4400	ultraHd.jpg	--	15/06/2021 12:34:53
Brightness	4277	ultraHd.jpg	--	15/06/2021 12:35:07
Brightness	4635	ultraHd.jpg	--	15/06/2021 12:35:21
Brightness	4781	ultraHd.jpg	--	15/06/2021 12:35:36
Brightness	4445	ultraHd.jpg	--	15/06/2021 12:35:53
Brightness	4506	ultraHd.jpg	--	15/06/2021 12:36:07
Brightness	4447	ultraHd.jpg	--	15/06/2021 12:36:22
Brightness	4275	ultraHd.jpg	--	15/06/2021 12:36:37

Average: 4472,2

MultiThread



2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	4599	ultraHd.jpg	2	15/06/2021 08:06:26
Brightness	4071	ultraHd.jpg	2	15/06/2021 08:06:43
Brightness	3732	ultraHd.jpg	2	15/06/2021 08:06:56
Brightness	3591	ultraHd.jpg	2	15/06/2021 08:07:11
Brightness	4283	ultraHd.jpg	2	15/06/2021 08:07:56
Brightness	3869	ultraHd.jpg	2	15/06/2021 08:08:16
Brightness	4062	ultraHd.jpg	2	15/06/2021 08:08:30
Brightness	4097	ultraHd.jpg	2	15/06/2021 08:08:46
Brightness	3923	ultraHd.jpg	2	15/06/2021 08:09:00
Brightness	4361	ultraHd.jpg	2	15/06/2021 08:09:23

Average: 4058,8

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	3793	ultraHd.jpg	4	15/06/2021 08:09:37
Brightness	3600	ultraHd.jpg	4	15/06/2021 08:10:04
Brightness	3652	ultraHd.jpg	4	15/06/2021 08:10:18
Brightness	3661	ultraHd.jpg	4	15/06/2021 08:10:34
Brightness	3772	ultraHd.jpg	4	15/06/2021 08:10:47
Brightness	3824	ultraHd.jpg	4	15/06/2021 08:11:03
Brightness	3571	ultraHd.jpg	4	15/06/2021 08:11:18
Brightness	3581	ultraHd.jpg	4	15/06/2021 08:11:31
Brightness	4316	ultraHd.jpg	4	15/06/2021 08:12:20
Brightness	3698	ultraHd.jpg	4	15/06/2021 08:12:38

Average: 3746,8

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	4368	ultraHd.jpg	8	15/06/2021 08:12:54
Brightness	3610	ultraHd.jpg	8	15/06/2021 08:13:10
Brightness	3815	ultraHd.jpg	8	15/06/2021 08:13:23
Brightness	3792	ultraHd.jpg	8	15/06/2021 08:13:37

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	4278	ultraHd.jpg	8	15/06/2021 08:13:52
Brightness	3835	ultraHd.jpg	8	15/06/2021 08:14:07
Brightness	4197	ultraHd.jpg	8	15/06/2021 08:14:25
Brightness	3720	ultraHd.jpg	8	15/06/2021 08:14:40
Brightness	3652	ultraHd.jpg	8	15/06/2021 08:14:54
Brightness	4404	ultraHd.jpg	8	15/06/2021 08:15:11

Average: 3967,1

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	3849	ultraHd.jpg	12	15/06/2021 08:15:25
Brightness	3872	ultraHd.jpg	12	15/06/2021 08:15:38
Brightness	3564	ultraHd.jpg	12	15/06/2021 08:15:51
Brightness	3722	ultraHd.jpg	12	15/06/2021 08:16:19
Brightness	3691	ultraHd.jpg	12	15/06/2021 08:16:35
Brightness	3892	ultraHd.jpg	12	15/06/2021 08:16:49
Brightness	4050	ultraHd.jpg	12	15/06/2021 08:17:02
Brightness	4529	ultraHd.jpg	12	15/06/2021 08:17:18
Brightness	3890	ultraHd.jpg	12	15/06/2021 08:17:35
Brightness	4529	ultraHd.jpg	12	15/06/2021 08:17:53

Average: 3958,8

Threadpool

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	346	ultraHd.jpg	2	15/06/2021 01:06:04
Brightness	154	ultraHd.jpg	2	15/06/2021 01:06:19
Brightness	269	ultraHd.jpg	2	15/06/2021 01:06:36
Brightness	165	ultraHd.jpg	2	15/06/2021 01:06:52
Brightness	312	ultraHd.jpg	2	15/06/2021 01:07:12
Brightness	402	ultraHd.jpg	2	15/06/2021 01:07:33
Brightness	262	ultraHd.jpg	2	15/06/2021 01:07:51
Brightness	375	ultraHd.jpg	2	15/06/2021 01:08:07

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	301	ultraHd.jpg	2	15/06/2021 01:08:25
Brightness	155	ultraHd.jpg	2	15/06/2021 01:08:40

Average: 274,1

#### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	424	ultraHd.jpg	4	15/06/2021 01:08:57
Brightness	384	ultraHd.jpg	4	15/06/2021 01:09:14
Brightness	303	ultraHd.jpg	4	15/06/2021 01:09:30
Brightness	174	ultraHd.jpg	4	15/06/2021 01:09:47
Brightness	323	ultraHd.jpg	4	15/06/2021 01:10:02
Brightness	305	ultraHd.jpg	4	15/06/2021 01:10:18
Brightness	349	ultraHd.jpg	4	15/06/2021 01:10:34
Brightness	434	ultraHd.jpg	4	15/06/2021 01:10:51
Brightness	423	ultraHd.jpg	4	15/06/2021 01:11:07
Brightness	162	ultraHd.jpg	4	15/06/2021 01:11:25

Average: 328,1

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	155	ultraHd.jpg	8	15/06/2021 07:36:27
Brightness	335	ultraHd.jpg	8	15/06/2021 07:36:43
Brightness	497	ultraHd.jpg	8	15/06/2021 07:37:23
Brightness	163	ultraHd.jpg	8	15/06/2021 07:37:43
Brightness	264	ultraHd.jpg	8	15/06/2021 07:38:04
Brightness	456	ultraHd.jpg	8	15/06/2021 07:38:22
Brightness	355	ultraHd.jpg	8	15/06/2021 07:38:39
Brightness	451	ultraHd.jpg	8	15/06/2021 07:38:58
Brightness	336	ultraHd.jpg	8	15/06/2021 07:39:16
Brightness	384	ultraHd.jpg	8	15/06/2021 07:39:34

Average: 339,6

#### 12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Brightness	469	ultraHd.jpg	12	15/06/2021 07:39:54
Brightness	429	ultraHd.jpg	12	15/06/2021 07:40:10
Brightness	328	ultraHd.jpg	12	15/06/2021 07:40:27
Brightness	368	ultraHd.jpg	12	15/06/2021 07:40:44
Brightness	385	ultraHd.jpg	12	15/06/2021 07:41:01
Brightness	305	ultraHd.jpg	12	15/06/2021 07:41:19
Brightness	379	ultraHd.jpg	12	15/06/2021 07:41:35
Brightness	326	ultraHd.jpg	12	15/06/2021 07:41:53
Brightness	379	ultraHd.jpg	12	15/06/2021 07:42:09
Brightness	280	ultraHd.jpg	12	15/06/2021 07:42:25

Average: 364,8

# Brightness

MacOS - Processor: 3,1 GHz Dual-Core Intel Core i7

## Image turtle.jpg

### Sequential

Implementation Used	Filter Used	Duration	File Used	Number of Threads	Date
Sequential	Brightness	143	turtle.jpg	--	15/06/2021 08:11:41
Sequential	Brightness	113	turtle.jpg	--	15/06/2021 08:12:03
Sequential	Brightness	114	turtle.jpg	--	15/06/2021 08:12:11
Sequential	Brightness	118	turtle.jpg	--	15/06/2021 08:12:51
Sequential	Brightness	110	turtle.jpg	--	15/06/2021 08:12:59
Sequential	Brightness	113	turtle.jpg	--	15/06/2021 08:13:08
Sequential	Brightness	114	turtle.jpg	--	15/06/2021 08:13:19
Sequential	Brightness	147	turtle.jpg	--	15/06/2021 08:13:33
Sequential	Brightness	111	turtle.jpg	--	15/06/2021 08:13:47
Sequential	Brightness	125	turtle.jpg	--	15/06/2021 08:13:57

Average: 120.8

### MultiThread

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	137	turtle.jpg	2	15/06/2021 08:18:16
Brightness	133	turtle.jpg	2	15/06/2021 08:18:28
Brightness	133	turtle.jpg	2	15/06/2021 08:18:37
Brightness	139	turtle.jpg	2	15/06/2021 08:18:47
Brightness	128	turtle.jpg	2	15/06/2021 08:18:56
Brightness	129	turtle.jpg	2	15/06/2021 08:19:05
Brightness	127	turtle.jpg	2	15/06/2021 08:19:15
Brightness	136	turtle.jpg	2	15/06/2021 08:19:23
Brightness	133	turtle.jpg	2	15/06/2021 08:19:43
Brightness	138	turtle.jpg	2	15/06/2021 08:19:52

Average: 133.1

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
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Filter Used	Duration	File Used	Number of Threads	Date
Brightness	145	turtle.jpg	4	15/06/2021 08:21:00
Brightness	134	turtle.jpg	4	15/06/2021 08:21:33
Brightness	132	turtle.jpg	4	15/06/2021 08:21:43
Brightness	143	turtle.jpg	4	15/06/2021 08:21:53
Brightness	132	turtle.jpg	4	15/06/2021 08:22:03
Brightness	136	turtle.jpg	4	15/06/2021 08:22:12
Brightness	131	turtle.jpg	4	15/06/2021 08:22:21
Brightness	131	turtle.jpg	4	15/06/2021 08:22:30
Brightness	131	turtle.jpg	4	15/06/2021 08:22:38
Brightness	147	turtle.jpg	4	15/06/2021 08:23:09

Average: 123.1

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	147	turtle.jpg	8	15/06/2021 08:25:02
Brightness	155	turtle.jpg	8	15/06/2021 08:25:11
Brightness	133	turtle.jpg	8	15/06/2021 08:25:19
Brightness	141	turtle.jpg	8	15/06/2021 08:25:26
Brightness	134	turtle.jpg	8	15/06/2021 08:25:35
Brightness	134	turtle.jpg	8	15/06/2021 08:25:43
Brightness	134	turtle.jpg	8	15/06/2021 08:25:51
Brightness	140	turtle.jpg	8	15/06/2021 08:26:00
Brightness	132	turtle.jpg	8	15/06/2021 08:26:15
Brightness	140	turtle.jpg	8	15/06/2021 08:26:26

Average: 139

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	170	turtle.jpg	12	15/06/2021 08:27:34
Brightness	184	turtle.jpg	12	15/06/2021 08:27:44
Brightness	136	turtle.jpg	12	15/06/2021 08:27:52
Brightness	136	turtle.jpg	12	15/06/2021 08:28:17
Brightness	155	turtle.jpg	12	15/06/2021 08:28:43
Brightness	134	turtle.jpg	12	15/06/2021 08:28:52

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	139	turtle.jpg	12	15/06/2021 08:29:02
Brightness	139	turtle.jpg	12	15/06/2021 08:29:11
Brightness	148	turtle.jpg	12	15/06/2021 08:29:20
Brightness	138	turtle.jpg	12	15/06/2021 08:29:27

Average: 147.9

## Threadpool

### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	8	turtle.jpg	2	15/06/2021 08:31:22
Brightness	7	turtle.jpg	2	15/06/2021 08:31:32
Brightness	7	turtle.jpg	2	15/06/2021 08:31:41
Brightness	8	turtle.jpg	2	15/06/2021 08:31:50
Brightness	7	turtle.jpg	2	15/06/2021 08:31:58
Brightness	7	turtle.jpg	2	15/06/2021 08:32:06
Brightness	8	turtle.jpg	2	15/06/2021 08:32:14
Brightness	8	turtle.jpg	2	15/06/2021 08:32:28
Brightness	7	turtle.jpg	2	15/06/2021 08:32:54
Brightness	8	turtle.jpg	2	15/06/2021 08:33:03

Average: 7,5

### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	16	turtle.jpg	4	15/06/2021 08:33:45
Brightness	31	turtle.jpg	4	15/06/2021 08:34:00
Brightness	13	turtle.jpg	4	15/06/2021 08:34:11
Brightness	13	turtle.jpg	4	15/06/2021 08:34:20
Brightness	12	turtle.jpg	4	15/06/2021 08:34:28
Brightness	13	turtle.jpg	4	15/06/2021 08:34:36
Brightness	9	turtle.jpg	4	15/06/2021 08:34:43
Brightness	29	turtle.jpg	4	15/06/2021 08:34:58
Brightness	33	turtle.jpg	4	15/06/2021 08:35:07
Brightness	14	turtle.jpg	4	15/06/2021 08:35:15

Average: 18,3

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	29	turtle.jpg	8	15/06/2021 08:36:00
Brightness	25	turtle.jpg	8	15/06/2021 08:36:10
Brightness	32	turtle.jpg	8	15/06/2021 08:36:18
Brightness	26	turtle.jpg	8	15/06/2021 08:36:27
Brightness	25	turtle.jpg	8	15/06/2021 08:36:36
Brightness	51	turtle.jpg	8	15/06/2021 08:36:43
Brightness	50	turtle.jpg	8	15/06/2021 08:36:52
Brightness	26	turtle.jpg	8	15/06/2021 08:37:00
Brightness	28	turtle.jpg	8	15/06/2021 08:37:09
Brightness	32	turtle.jpg	8	15/06/2021 08:37:18

Average: 32,4

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	60	turtle.jpg	12	15/06/2021 08:38:04
Brightness	57	turtle.jpg	12	15/06/2021 08:38:29
Brightness	64	turtle.jpg	12	15/06/2021 08:38:40
Brightness	68	turtle.jpg	12	15/06/2021 08:38:48
Brightness	70	turtle.jpg	12	15/06/2021 08:38:57
Brightness	57	turtle.jpg	12	15/06/2021 08:39:33
Brightness	32	turtle.jpg	12	15/06/2021 08:39:44
Brightness	34	turtle.jpg	12	15/06/2021 08:39:53
Brightness	58	turtle.jpg	12	15/06/2021 08:40:00
Brightness	35	turtle.jpg	12	15/06/2021 08:40:08

Average: 53,5

Image cat.jpg

Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	2405	cat.jpg	--	15/06/2021 08:41:41
Brightness	2264	cat.jpg	--	15/06/2021 08:42:03
Brightness	2337	cat.jpg	--	15/06/2021 08:42:20
Brightness	2260	cat.jpg	--	15/06/2021 08:42:33



Filter Used	Duration	File Used	Number of Threads	Date
Brightness	2515	cat.jpg	--	15/06/2021 08:42:46
Brightness	2272	cat.jpg	--	15/06/2021 08:43:01
Brightness	2083	cat.jpg	--	15/06/2021 08:43:13
Brightness	2283	cat.jpg	--	15/06/2021 08:43:43
Brightness	2523	cat.jpg	--	15/06/2021 08:43:55
Brightness	2360	cat.jpg	--	15/06/2021 08:44:06

Average: 2330,2

## MultiThread

### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	2275	cat.jpg	2	15/06/2021 08:46:17
Brightness	1895	cat.jpg	2	15/06/2021 08:46:51
Brightness	2138	cat.jpg	2	15/06/2021 08:47:13
Brightness	2519	cat.jpg	2	15/06/2021 08:48:00
Brightness	2138	cat.jpg	2	15/06/2021 08:48:45
Brightness	2712	cat.jpg	2	15/06/2021 08:50:22
Brightness	1727	cat.jpg	2	15/06/2021 08:50:55
Brightness	2371	cat.jpg	2	15/06/2021 08:51:33
Brightness	1735	cat.jpg	2	15/06/2021 09:06:05
Brightness	1692	cat.jpg	2	15/06/2021 09:08:20

Average: 2120,2

### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	1872	cat.jpg	4	15/06/2021 09:13:19
Brightness	1826	cat.jpg	4	15/06/2021 09:13:48
Brightness	1692	cat.jpg	4	15/06/2021 09:14:00
Brightness	1651	cat.jpg	4	15/06/2021 09:14:12
Brightness	1787	cat.jpg	4	15/06/2021 09:14:27
Brightness	1674	cat.jpg	4	15/06/2021 09:15:05

Average: 1750,3

### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
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Filter Used	Duration	File Used	Number of Threads	Date
Brightness	1703	cat.jpg	8	15/06/2021 09:16:34
Brightness	2045	cat.jpg	8	15/06/2021 09:16:57
Brightness	1706	cat.jpg	8	15/06/2021 09:17:10
Brightness	1788	cat.jpg	8	15/06/2021 09:17:39
Brightness	1833	cat.jpg	8	15/06/2021 09:17:57

Average: 1815

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	1675	cat.jpg	12	15/06/2021 09:18:30
Brightness	1691	cat.jpg	12	15/06/2021 09:18:41
Brightness	1845	cat.jpg	12	15/06/2021 09:18:54
Brightness	1770	cat.jpg	12	15/06/2021 09:19:07
Brightness	1728	cat.jpg	12	15/06/2021 09:19:19

Average: 1741,8

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	77	cat.jpg	2	15/06/2021 09:21:27
Brightness	109	cat.jpg	2	15/06/2021 09:21:43
Brightness	208	cat.jpg	2	15/06/2021 09:21:53
Brightness	200	cat.jpg	2	15/06/2021 09:22:05
Brightness	274	cat.jpg	2	15/06/2021 09:22:22

Average: 173,6

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	78	cat.jpg	4	15/06/2021 09:25:56
Brightness	258	cat.jpg	4	15/06/2021 09:26:08
Brightness	84	cat.jpg	4	15/06/2021 09:26:16
Brightness	87	cat.jpg	4	15/06/2021 09:26:26
Brightness	55	cat.jpg	4	15/06/2021 09:26:38

Average: 112,4

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	155	cat.jpg	8	15/06/2021 09:27:22
Brightness	378	cat.jpg	8	15/06/2021 09:27:35
Brightness	299	cat.jpg	8	15/06/2021 09:27:52
Brightness	266	cat.jpg	8	15/06/2021 09:28:12
Brightness	303	cat.jpg	8	15/06/2021 09:28:24

Average: 280,2

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	688	cat.jpg	12	15/06/2021 09:29:00
Brightness	664	cat.jpg	12	15/06/2021 09:29:12
Brightness	725	cat.jpg	12	15/06/2021 09:29:26
Brightness	180	cat.jpg	12	15/06/2021 09:29:39
Brightness	430	cat.jpg	12	15/06/2021 09:29:58

Average: 537,4

Image tinycar.jpg

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Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	39	tinyCar.jpg	--	15/06/2021 09:31:22
Brightness	38	tinyCar.jpg	--	15/06/2021 09:31:32
Brightness	38	tinyCar.jpg	--	15/06/2021 09:31:39
Brightness	43	tinyCar.jpg	--	15/06/2021 09:31:45
Brightness	47	tinyCar.jpg	--	15/06/2021 09:31:54
Brightness	45	tinyCar.jpg	--	15/06/2021 09:32:58

Average: 41,7

MultiThread

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	44	tinycar.jpg	2	15/06/2021 09:34:24
Brightness	49	tinyCar.jpg	2	15/06/2021 09:35:38
Brightness	43	tinyCar.jpg	2	15/06/2021 09:35:48
Brightness	42	tinyCar.jpg	2	15/06/2021 09:35:55
Brightness	46	tinyCar.jpg	2	15/06/2021 09:36:04

Average: 44,8

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	46	tinyCar.jpg	4	15/06/2021 09:36:52
Brightness	46	tinyCar.jpg	4	15/06/2021 09:37:00
Brightness	47	tinyCar.jpg	4	15/06/2021 09:37:08
Brightness	45	tinyCar.jpg	4	15/06/2021 09:37:16
Brightness	46	tinyCar.jpg	4	15/06/2021 09:37:27

Average: 46

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	49	tinyCar.jpg	8	15/06/2021 09:38:27
Brightness	45	tinyCar.jpg	8	15/06/2021 09:38:39
Brightness	47	tinyCar.jpg	8	15/06/2021 09:38:49
Brightness	50	tinyCar.jpg	8	15/06/2021 09:44:56
Brightness	55	tinyCar.jpg	8	15/06/2021 09:45:07

Average: 49,2

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	45	tinyCar.jpg	12	15/06/2021 09:45:32
Brightness	51	tinyCar.jpg	12	15/06/2021 09:45:40
Brightness	57	tinyCar.jpg	12	15/06/2021 09:45:49
Brightness	49	tinyCar.jpg	12	15/06/2021 09:45:55
Brightness	52	tinyCar.jpg	12	15/06/2021 09:46:04

Average: 50,8

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	4	tinyCar.jpg	2	15/06/2021 09:46:47
Brightness	3	tinyCar.jpg	2	15/06/2021 09:46:56
Brightness	3	tinyCar.jpg	2	15/06/2021 09:47:04
Brightness	3	tinyCar.jpg	2	15/06/2021 09:47:13
Brightness	3	tinyCar.jpg	2	15/06/2021 09:48:00

Average: 3,2

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	3	tinyCar.jpg	4	15/06/2021 09:48:41
Brightness	7	tinyCar.jpg	4	15/06/2021 09:49:11
Brightness	3	tinyCar.jpg	4	15/06/2021 09:49:21
Brightness	4	tinyCar.jpg	4	15/06/2021 09:49:30
Brightness	9	tinyCar.jpg	4	15/06/2021 09:49:44

Average: 5,2

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	6	tinyCar.jpg	8	15/06/2021 09:50:17
Brightness	8	tinyCar.jpg	8	15/06/2021 09:50:26
Brightness	10	tinyCar.jpg	8	15/06/2021 09:50:36
Brightness	6	tinyCar.jpg	8	15/06/2021 09:50:50
Brightness	8	tinyCar.jpg	8	15/06/2021 09:51:01

Average: 7,6

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	9	tinyCar.jpg	12	15/06/2021 09:51:35
Brightness	10	tinyCar.jpg	12	15/06/2021 09:51:43
Brightness	9	tinyCar.jpg	12	15/06/2021 09:51:51
Brightness	7	tinyCar.jpg	12	15/06/2021 09:51:58
Brightness	11	tinyCar.jpg	12	15/06/2021 09:52:07

Average: 9,2

Image ultrahd.jpg

Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	9600	ultrahd.jpg	--	15/06/2021 09:53:47
Brightness	6452	ultrahd.jpg	--	15/06/2021 09:54:16
Brightness	6469	ultrahd.jpg	--	15/06/2021 09:55:19
Brightness	6180	ultrahd.jpg	--	15/06/2021 09:55:43
Brightness	6222	ultrahd.jpg	--	15/06/2021 09:56:07

Average: 6984,6

MultiThread

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	5838	ultrahd.jpg	2	15/06/2021 09:58:47
Brightness	6665	ultrahd.jpg	2	15/06/2021 10:01:40
Brightness	5980	ultrahd.jpg	2	15/06/2021 10:04:42
Brightness	6037	ultrahd.jpg	2	15/06/2021 10:05:07
Brightness	8528	ultrahd.jpg	2	15/06/2021 10:41:16

Average: 6609,6

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	5995	ultrahd.jpg	4	15/06/2021 10:43:53
Brightness	5686	ultrahd.jpg	4	15/06/2021 10:44:32
Brightness	5969	ultrahd.jpg	4	15/06/2021 10:45:10
Brightness	5980	ultrahd.jpg	4	15/06/2021 10:45:39
Brightness	6007	ultrahd.jpg	4	15/06/2021 10:46:33

Average: 5927,4

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	5803	ultrahd.jpg	8	15/06/2021 10:48:32
Brightness	5847	ultrahd.jpg	8	15/06/2021 10:48:59

Average: 5825

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	5862	ultrahd.jpg	12	15/06/2021 10:50:18
Brightness	5901	ultrahd.jpg	12	15/06/2021 10:50:45

Average: 5881,5

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	575	ultrahd.jpg	2	15/06/2021 10:52:15
Brightness	584	ultrahd.jpg	2	15/06/2021 10:52:42

Average: 579,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	542	ultrahd.jpg	4	15/06/2021 10:53:06
Brightness	624	ultrahd.jpg	4	15/06/2021 10:53:29

Average: 583

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	514	ultrahd.jpg	8	15/06/2021 10:54:16
Brightness	840	ultrahd.jpg	8	15/06/2021 10:54:44

Average: 677

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Brightness	938	ultrahd.jpg	12	15/06/2021 10:55:10
Brightness	1129	ultrahd.jpg	12	15/06/2021 10:55:34

Average: 1033,5

# Grayscale

Windows - Processor: Intel(R) Core(TM) i7-8665U CPU @ 1.90GHz 2.11 GHz

## Image cat.jpg

### Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale	1289	cat.jpg	--	15/06/2021 08:46:54
Grayscale	1242	cat.jpg	--	15/06/2021 08:47:01
Grayscale	1208	cat.jpg	--	15/06/2021 08:47:08
Grayscale	1177	cat.jpg	--	15/06/2021 08:47:14
Grayscale	1331	cat.jpg	--	15/06/2021 08:47:21
Grayscale	1295	cat.jpg	--	15/06/2021 08:47:28
Grayscale	1195	cat.jpg	--	15/06/2021 08:47:34
Grayscale	1351	cat.jpg	--	15/06/2021 08:47:41
Grayscale	1163	cat.jpg	--	15/06/2021 08:47:48
Grayscale	1274	cat.jpg	--	15/06/2021 08:47:54

Average: 1252,5

### MultiThread

#### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	1243	cat.jpg	2	15/06/2021 09:34:52
GreyScale	1239	cat.jpg	2	15/06/2021 09:35:01
GreyScale	1221	cat.jpg	2	15/06/2021 09:35:12
GreyScale	1213	cat.jpg	2	15/06/2021 09:35:20
GreyScale	1062	cat.jpg	2	15/06/2021 09:35:27
GreyScale	1279	cat.jpg	2	15/06/2021 09:35:35
GreyScale	1058	cat.jpg	2	15/06/2021 09:35:41
GreyScale	1252	cat.jpg	2	15/06/2021 09:35:48
GreyScale	1238	cat.jpg	2	15/06/2021 09:35:57
GreyScale	1133	cat.jpg	2	15/06/2021 09:36:04

Average: 1193,8

#### 4 threads



Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	1191	cat.jpg	4	15/06/2021 09:36:21
GreyScale	1191	cat.jpg	4	15/06/2021 09:36:32
GreyScale	1195	cat.jpg	4	15/06/2021 09:36:42
GreyScale	1204	cat.jpg	4	15/06/2021 09:36:56
GreyScale	1207	cat.jpg	4	15/06/2021 09:37:05
GreyScale	1260	cat.jpg	4	15/06/2021 09:37:12
GreyScale	1209	cat.jpg	4	15/06/2021 09:37:20
GreyScale	1223	cat.jpg	4	15/06/2021 09:37:28
GreyScale	1235	cat.jpg	4	15/06/2021 09:37:36
GreyScale	1236	cat.jpg	4	15/06/2021 09:37:44

Average: 1215,1

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	1251	cat.jpg	8	15/06/2021 09:37:53
GreyScale	1221	cat.jpg	8	15/06/2021 09:38:01
GreyScale	1221	cat.jpg	8	15/06/2021 09:38:10
GreyScale	1242	cat.jpg	8	15/06/2021 09:38:19
GreyScale	1208	cat.jpg	8	15/06/2021 09:41:29
GreyScale	1244	cat.jpg	8	15/06/2021 09:41:41
GreyScale	1208	cat.jpg	8	15/06/2021 09:42:00
GreyScale	1234	cat.jpg	8	15/06/2021 09:42:08
GreyScale	1288	cat.jpg	8	15/06/2021 09:42:23
GreyScale	1089	cat.jpg	8	15/06/2021 09:42:34

Average: 1220,6

#### 12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	1259	cat.jpg	12	15/06/2021 09:42:43
GreyScale	1067	cat.jpg	12	15/06/2021 09:42:50
GreyScale	1264	cat.jpg	12	15/06/2021 09:42:58
GreyScale	1250	cat.jpg	12	15/06/2021 09:43:05
GreyScale	1067	cat.jpg	12	15/06/2021 09:43:12

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	1178	cat.jpg	12	15/06/2021 09:43:20
GreyScale	1276	cat.jpg	12	15/06/2021 09:43:29
GreyScale	1282	cat.jpg	12	15/06/2021 09:43:36
GreyScale	1209	cat.jpg	12	15/06/2021 09:43:44
GreyScale	1230	cat.jpg	12	15/06/2021 09:43:51

Average: 1208,2

## Threadpool

### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	55	cat.jpg	2	16/06/2021 12:27:38
Grayscale	49	cat.jpg	2	16/06/2021 12:27:46
Grayscale	53	cat.jpg	2	16/06/2021 12:27:53
Grayscale	42	cat.jpg	2	16/06/2021 12:28:02
Grayscale	44	cat.jpg	2	16/06/2021 12:28:09
Grayscale	52	cat.jpg	2	16/06/2021 12:28:16
Grayscale	49	cat.jpg	2	16/06/2021 12:28:24
Grayscale	47	cat.jpg	2	16/06/2021 12:28:30
Grayscale	51	cat.jpg	2	16/06/2021 12:28:37
Grayscale	63	cat.jpg	2	16/06/2021 12:28:44

Average: 50,5

### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	65	cat.jpg	4	16/06/2021 12:28:59
Grayscale	61	cat.jpg	4	16/06/2021 12:29:06
Grayscale	69	cat.jpg	4	16/06/2021 12:29:14
Grayscale	56	cat.jpg	4	16/06/2021 12:29:21
Grayscale	58	cat.jpg	4	16/06/2021 12:29:29
Grayscale	63	cat.jpg	4	16/06/2021 12:29:37
Grayscale	56	cat.jpg	4	16/06/2021 12:29:45
Grayscale	57	cat.jpg	4	16/06/2021 12:29:53
Grayscale	90	cat.jpg	4	16/06/2021 12:30:01
Grayscale	62	cat.jpg	4	16/06/2021 12:30:08

Average: 63,7

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	56	cat.jpg	8	16/06/2021 12:30:16
Grayscale	58	cat.jpg	8	16/06/2021 12:30:24
Grayscale	53	cat.jpg	8	16/06/2021 12:30:32
Grayscale	53	cat.jpg	8	16/06/2021 12:30:40
Grayscale	78	cat.jpg	8	16/06/2021 12:30:47
Grayscale	50	cat.jpg	8	16/06/2021 12:30:56
Grayscale	58	cat.jpg	8	16/06/2021 12:31:04
Grayscale	64	cat.jpg	8	16/06/2021 12:31:11
Grayscale	74	cat.jpg	8	16/06/2021 12:31:19
Grayscale	61	cat.jpg	8	16/06/2021 12:31:28

Average: 60,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	81	cat.jpg	12	16/06/2021 12:31:35
Grayscale	57	cat.jpg	12	16/06/2021 12:31:42
Grayscale	64	cat.jpg	12	16/06/2021 12:31:51
Grayscale	53	cat.jpg	12	16/06/2021 12:31:58
Grayscale	142	cat.jpg	12	16/06/2021 12:32:22
Grayscale	54	cat.jpg	12	16/06/2021 12:32:29
Grayscale	55	cat.jpg	12	16/06/2021 12:32:39
Grayscale	51	cat.jpg	12	16/06/2021 12:32:46
Grayscale	64	cat.jpg	12	16/06/2021 12:32:54
Grayscale	74	cat.jpg	12	16/06/2021 12:33:02

Average: 69,5

Image turtle.jpg

Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale	82	turtle.jpg	--	15/06/2021 08:45:46
Grayscale	76	turtle.jpg	--	15/06/2021 08:45:52
Grayscale	79	turtle.jpg	--	15/06/2021 08:45:59

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale	84	turtle.jpg	--	15/06/2021 08:46:04
Grayscale	69	turtle.jpg	--	15/06/2021 08:46:08
Grayscale	64	turtle.jpg	--	15/06/2021 08:46:15
Grayscale	99	turtle.jpg	--	15/06/2021 08:46:19
Grayscale	77	turtle.jpg	--	15/06/2021 08:46:24
Grayscale	77	turtle.jpg	--	15/06/2021 08:46:34
Grayscale	90	turtle.jpg	--	15/06/2021 08:46:38

Average: 79,7

MultiThread

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	82	turtle.jpg	2	15/06/2021 09:45:06
GreyScale	76	turtle.jpg	2	15/06/2021 09:45:12
GreyScale	79	turtle.jpg	2	15/06/2021 09:45:21
GreyScale	85	turtle.jpg	2	15/06/2021 09:45:29
GreyScale	79	turtle.jpg	2	15/06/2021 09:45:35
GreyScale	86	turtle.jpg	2	15/06/2021 09:45:41
GreyScale	84	turtle.jpg	2	15/06/2021 09:45:47
GreyScale	84	turtle.jpg	2	15/06/2021 09:45:52
GreyScale	84	turtle.jpg	2	15/06/2021 09:45:58
GreyScale	76	turtle.jpg	2	15/06/2021 09:46:04

Average: 81,5

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	91	turtle.jpg	4	15/06/2021 09:46:18
GreyScale	85	turtle.jpg	4	15/06/2021 09:46:29
GreyScale	84	turtle.jpg	4	15/06/2021 09:46:35
GreyScale	94	turtle.jpg	4	15/06/2021 09:46:40
GreyScale	92	turtle.jpg	4	15/06/2021 09:46:46
GreyScale	89	turtle.jpg	4	15/06/2021 09:46:51
GreyScale	97	turtle.jpg	4	15/06/2021 09:46:57

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	97	turtle.jpg	4	15/06/2021 09:47:02
GreyScale	98	turtle.jpg	4	15/06/2021 09:47:08
GreyScale	100	turtle.jpg	4	15/06/2021 09:47:16

Average: 92,7

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	78	turtle.jpg	8	15/06/2021 09:47:28
GreyScale	93	turtle.jpg	8	15/06/2021 09:47:34
GreyScale	85	turtle.jpg	8	15/06/2021 09:47:39
GreyScale	95	turtle.jpg	8	15/06/2021 09:47:45
GreyScale	96	turtle.jpg	8	15/06/2021 09:47:52
GreyScale	99	turtle.jpg	8	15/06/2021 09:47:58
GreyScale	101	turtle.jpg	8	15/06/2021 09:48:03
GreyScale	100	turtle.jpg	8	15/06/2021 09:48:08
GreyScale	93	turtle.jpg	8	15/06/2021 09:48:19
GreyScale	87	turtle.jpg	8	15/06/2021 09:48:33

Average: 92,7

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	81	turtle.jpg	12	15/06/2021 09:48:49
GreyScale	93	turtle.jpg	12	15/06/2021 09:48:54
GreyScale	94	turtle.jpg	12	15/06/2021 09:48:59
GreyScale	115	turtle.jpg	12	15/06/2021 09:49:08
GreyScale	92	turtle.jpg	12	15/06/2021 09:49:13
GreyScale	83	turtle.jpg	12	15/06/2021 09:49:19
GreyScale	101	turtle.jpg	12	15/06/2021 09:49:25
GreyScale	84	turtle.jpg	12	15/06/2021 09:49:31
GreyScale	96	turtle.jpg	12	15/06/2021 09:49:36
GreyScale	90	turtle.jpg	12	15/06/2021 09:49:41

Average: 92,9

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	9	turtle.jpg	2	16/06/2021 12:23:10
Grayscale	0	turtle.jpg	2	16/06/2021 12:23:15
Grayscale	15	turtle.jpg	2	16/06/2021 12:23:20
Grayscale	18	turtle.jpg	2	16/06/2021 12:23:26
Grayscale	0	turtle.jpg	2	16/06/2021 12:23:32
Grayscale	16	turtle.jpg	2	16/06/2021 12:23:36
Grayscale	0	turtle.jpg	2	16/06/2021 12:23:40
Grayscale	16	turtle.jpg	2	16/06/2021 12:23:45
Grayscale	15	turtle.jpg	2	16/06/2021 12:23:49
Grayscale	16	turtle.jpg	2	16/06/2021 12:23:53

Average: 10,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	15	turtle.jpg	4	16/06/2021 12:23:57
Grayscale	0	turtle.jpg	4	16/06/2021 12:24:01
Grayscale	16	turtle.jpg	4	16/06/2021 12:24:06
Grayscale	0	turtle.jpg	4	16/06/2021 12:24:10
Grayscale	0	turtle.jpg	4	16/06/2021 12:24:14
Grayscale	0	turtle.jpg	4	16/06/2021 12:24:28
Grayscale	0	turtle.jpg	4	16/06/2021 12:24:37
Grayscale	0	turtle.jpg	4	16/06/2021 12:24:42
Grayscale	16	turtle.jpg	4	16/06/2021 12:24:46
Grayscale	17	turtle.jpg	4	16/06/2021 12:24:51

Average: 6,4

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	27	turtle.jpg	8	16/06/2021 12:24:57
Grayscale	46	turtle.jpg	8	16/06/2021 12:25:02
Grayscale	23	turtle.jpg	8	16/06/2021 12:25:06
Grayscale	20	turtle.jpg	8	16/06/2021 12:25:12
Grayscale	15	turtle.jpg	8	16/06/2021 12:25:17

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	31	turtle.jpg	8	16/06/2021 12:25:22
Grayscale	16	turtle.jpg	8	16/06/2021 12:25:27
Grayscale	22	turtle.jpg	8	16/06/2021 12:25:32
Grayscale	16	turtle.jpg	8	16/06/2021 12:25:36
Grayscale	21	turtle.jpg	8	16/06/2021 12:25:49

Average: 23,7

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	32	turtle.jpg	12	16/06/2021 12:25:53
Grayscale	29	turtle.jpg	12	16/06/2021 12:25:57
Grayscale	15	turtle.jpg	12	16/06/2021 12:26:04
Grayscale	18	turtle.jpg	12	16/06/2021 12:26:10
Grayscale	25	turtle.jpg	12	16/06/2021 12:26:16
Grayscale	16	turtle.jpg	12	16/06/2021 12:26:24
Grayscale	15	turtle.jpg	12	16/06/2021 12:26:30
Grayscale	32	turtle.jpg	12	16/06/2021 12:26:34
Grayscale	16	turtle.jpg	12	16/06/2021 12:26:38
Grayscale	28	turtle.jpg	12	16/06/2021 12:26:43

Average: 22,6

Image tinyCar.jpg

Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale	27	tinyCar.jpg	--	15/06/2021 08:48:18
Grayscale	31	tinyCar.jpg	--	15/06/2021 08:48:23
Grayscale	32	tinyCar.jpg	--	15/06/2021 08:48:29
Grayscale	47	tinyCar.jpg	--	15/06/2021 08:48:33
Grayscale	43	tinyCar.jpg	--	15/06/2021 08:48:39
Grayscale	42	tinyCar.jpg	--	15/06/2021 08:48:44
Grayscale	25	tinyCar.jpg	--	15/06/2021 08:48:48
Grayscale	28	tinyCar.jpg	--	15/06/2021 08:48:54
Grayscale	31	tinyCar.jpg	--	15/06/2021 08:48:58
Grayscale	33	tinyCar.jpg	--	15/06/2021 08:49:03

Average: 33,9

MultiThread

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	35	tinyCar.jpg	2	15/06/2021 09:50:46
GreyScale	34	tinyCar.jpg	2	15/06/2021 09:50:51
GreyScale	32	tinyCar.jpg	2	15/06/2021 09:50:56
GreyScale	32	tinyCar.jpg	2	15/06/2021 09:51:01
GreyScale	35	tinyCar.jpg	2	15/06/2021 09:51:06
GreyScale	28	tinyCar.jpg	2	15/06/2021 09:51:11
GreyScale	38	tinyCar.jpg	2	15/06/2021 09:51:16
GreyScale	32	tinyCar.jpg	2	15/06/2021 09:51:24
GreyScale	43	tinyCar.jpg	2	15/06/2021 09:51:29
GreyScale	36	tinyCar.jpg	2	15/06/2021 09:51:36

Average: 34,5

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	37	tinyCar.jpg	4	15/06/2021 09:51:42
GreyScale	26	tinyCar.jpg	4	15/06/2021 09:51:47
GreyScale	34	tinyCar.jpg	4	15/06/2021 09:51:52
GreyScale	26	tinyCar.jpg	4	15/06/2021 09:51:56
GreyScale	32	tinyCar.jpg	4	15/06/2021 09:52:04
GreyScale	20	tinyCar.jpg	4	15/06/2021 09:52:10
GreyScale	25	tinyCar.jpg	4	15/06/2021 09:52:15
GreyScale	32	tinyCar.jpg	4	15/06/2021 09:52:20
GreyScale	18	tinyCar.jpg	4	15/06/2021 09:52:33
GreyScale	42	tinyCar.jpg	4	15/06/2021 09:52:39

Average: 29,2

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	33	tinyCar.jpg	8	15/06/2021 09:52:56
GreyScale	39	tinyCar.jpg	8	15/06/2021 09:53:01



Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	25	tinyCar.jpg	8	15/06/2021 09:53:07
GreyScale	25	tinyCar.jpg	8	15/06/2021 09:53:13
GreyScale	28	tinyCar.jpg	8	15/06/2021 09:53:17
GreyScale	33	tinyCar.jpg	8	15/06/2021 09:53:27
GreyScale	35	tinyCar.jpg	8	15/06/2021 09:53:33
GreyScale	33	tinyCar.jpg	8	15/06/2021 09:53:38
GreyScale	36	tinyCar.jpg	8	15/06/2021 09:53:44
GreyScale	40	tinyCar.jpg	8	15/06/2021 09:53:49

Average: 32,7

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	66	tinyCar.jpg	12	15/06/2021 09:53:56
GreyScale	37	tinyCar.jpg	12	15/06/2021 09:54:02
GreyScale	35	tinyCar.jpg	12	15/06/2021 09:54:07
GreyScale	53	tinyCar.jpg	12	15/06/2021 09:54:12
GreyScale	31	tinyCar.jpg	12	15/06/2021 09:54:17
GreyScale	32	tinyCar.jpg	12	15/06/2021 09:54:22
GreyScale	32	tinyCar.jpg	12	15/06/2021 09:54:29
GreyScale	38	tinyCar.jpg	12	15/06/2021 09:54:34
GreyScale	37	tinyCar.jpg	12	15/06/2021 09:54:39
GreyScale	37	tinyCar.jpg	12	15/06/2021 09:54:44

Average: 39,8

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	0	tinyCar.jpg	2	16/06/2021 12:18:42
Grayscale	0	tinyCar.jpg	2	16/06/2021 12:18:47
Grayscale	0	tinyCar.jpg	2	16/06/2021 12:18:54
Grayscale	0	tinyCar.jpg	2	16/06/2021 12:18:59
Grayscale	0	tinyCar.jpg	2	16/06/2021 12:19:04
Grayscale	0	tinyCar.jpg	2	16/06/2021 12:19:08

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	0	tinyCar.jpg	2	16/06/2021 12:19:13
Grayscale	0	tinyCar.jpg	2	16/06/2021 12:19:18
Grayscale	16	tinyCar.jpg	2	16/06/2021 12:19:22
Grayscale	15	tinyCar.jpg	2	16/06/2021 12:19:26

Average: 3,1

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	16	tinyCar.jpg	4	16/06/2021 12:19:32
Grayscale	16	tinyCar.jpg	4	16/06/2021 12:19:43
Grayscale	0	tinyCar.jpg	4	16/06/2021 12:19:53
Grayscale	0	tinyCar.jpg	4	16/06/2021 12:19:58
Grayscale	0	tinyCar.jpg	4	16/06/2021 12:20:04
Grayscale	16	tinyCar.jpg	4	16/06/2021 12:20:09
Grayscale	0	tinyCar.jpg	4	16/06/2021 12:20:16
Grayscale	17	tinyCar.jpg	4	16/06/2021 12:20:22
Grayscale	15	tinyCar.jpg	4	16/06/2021 12:20:28
Grayscale	0	tinyCar.jpg	4	16/06/2021 12:20:34

Average: 8

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	0	tinyCar.jpg	8	16/06/2021 12:20:39
Grayscale	0	tinyCar.jpg	8	16/06/2021 12:20:44
Grayscale	0	tinyCar.jpg	8	16/06/2021 12:20:48
Grayscale	16	tinyCar.jpg	8	16/06/2021 12:20:53
Grayscale	0	tinyCar.jpg	8	16/06/2021 12:20:58
Grayscale	0	tinyCar.jpg	8	16/06/2021 12:21:02
Grayscale	0	tinyCar.jpg	8	16/06/2021 12:21:06
Grayscale	16	tinyCar.jpg	8	16/06/2021 12:21:11
Grayscale	0	tinyCar.jpg	8	16/06/2021 12:21:15
Grayscale	16	tinyCar.jpg	8	16/06/2021 12:21:20

Average: 4,8

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	0	tinyCar.jpg	12	16/06/2021 12:21:27
Grayscale	16	tinyCar.jpg	12	16/06/2021 12:21:32
Grayscale	0	tinyCar.jpg	12	16/06/2021 12:21:36
Grayscale	17	tinyCar.jpg	12	16/06/2021 12:21:41
Grayscale	2	tinyCar.jpg	12	16/06/2021 12:21:45
Grayscale	0	tinyCar.jpg	12	16/06/2021 12:21:49
Grayscale	16	tinyCar.jpg	12	16/06/2021 12:21:54
Grayscale	16	tinyCar.jpg	12	16/06/2021 12:22:03
Grayscale	16	tinyCar.jpg	12	16/06/2021 12:22:07
Grayscale	0	tinyCar.jpg	12	16/06/2021 12:22:11

Average: 8,3

## Image ultraHd.jpg

### Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale	3919	ultraHd.jpg	--	15/06/2021 08:50:08
Grayscale	3860	ultraHd.jpg	--	15/06/2021 08:50:20
Grayscale	3874	ultraHd.jpg	--	15/06/2021 08:50:34
Grayscale	3921	ultraHd.jpg	--	15/06/2021 08:50:47
Grayscale	3812	ultraHd.jpg	--	15/06/2021 08:50:59
Grayscale	3921	ultraHd.jpg	--	15/06/2021 08:51:12
Grayscale	4019	ultraHd.jpg	--	15/06/2021 08:51:25
Grayscale	3961	ultraHd.jpg	--	15/06/2021 08:51:38
Grayscale	3905	ultraHd.jpg	--	15/06/2021 08:51:51
Grayscale	4162	ultraHd.jpg	--	15/06/2021 08:52:04

Average: 3935,4

### MultiThread

#### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	3791	ultraHd.jpg	2	15/06/2021 09:56:04
GreyScale	4212	ultraHd.jpg	2	15/06/2021 09:56:19
GreyScale	3650	ultraHd.jpg	2	15/06/2021 09:56:34

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	4451	ultraHd.jpg	2	15/06/2021 09:57:19
GreyScale	3851	ultraHd.jpg	2	15/06/2021 09:57:39
GreyScale	4244	ultraHd.jpg	2	15/06/2021 09:57:56
GreyScale	4395	ultraHd.jpg	2	15/06/2021 09:58:13
GreyScale	4629	ultraHd.jpg	2	15/06/2021 09:58:29
GreyScale	3782	ultraHd.jpg	2	15/06/2021 09:58:47
GreyScale	4252	ultraHd.jpg	2	15/06/2021 09:59:05

Average: 4125,7

#### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	3635	ultraHd.jpg	4	15/06/2021 09:59:23
GreyScale	4159	ultraHd.jpg	4	15/06/2021 09:59:43
GreyScale	3728	ultraHd.jpg	4	15/06/2021 09:59:57
GreyScale	3714	ultraHd.jpg	4	15/06/2021 10:00:11
GreyScale	4277	ultraHd.jpg	4	15/06/2021 10:00:26
GreyScale	4257	ultraHd.jpg	4	15/06/2021 10:00:45
GreyScale	3854	ultraHd.jpg	4	15/06/2021 10:01:00
GreyScale	3771	ultraHd.jpg	4	15/06/2021 10:01:15
GreyScale	3789	ultraHd.jpg	4	15/06/2021 10:01:34
GreyScale	3716	ultraHd.jpg	4	15/06/2021 10:01:48

Average: 3890

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	3960	ultraHd.jpg	8	15/06/2021 10:02:02
GreyScale	4013	ultraHd.jpg	8	15/06/2021 10:02:17
GreyScale	4440	ultraHd.jpg	8	15/06/2021 10:02:33
GreyScale	4584	ultraHd.jpg	8	15/06/2021 10:03:07
GreyScale	4488	ultraHd.jpg	8	15/06/2021 10:03:26
GreyScale	3899	ultraHd.jpg	8	15/06/2021 10:03:41
GreyScale	3718	ultraHd.jpg	8	15/06/2021 10:03:56
GreyScale	4350	ultraHd.jpg	8	15/06/2021 10:04:11

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	4504	ultraHd.jpg	8	15/06/2021 10:04:38
GreyScale	3880	ultraHd.jpg	8	15/06/2021 10:04:56

Average: 4183,6

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
GreyScale	3831	ultraHd.jpg	12	15/06/2021 10:05:09
GreyScale	3826	ultraHd.jpg	12	15/06/2021 10:05:23
GreyScale	4041	ultraHd.jpg	12	15/06/2021 10:05:38
GreyScale	4633	ultraHd.jpg	12	15/06/2021 10:06:16
GreyScale	4730	ultraHd.jpg	12	15/06/2021 10:06:46
GreyScale	3740	ultraHd.jpg	12	15/06/2021 10:07:00
GreyScale	3722	ultraHd.jpg	12	15/06/2021 10:07:14
GreyScale	4593	ultraHd.jpg	12	15/06/2021 10:07:34
GreyScale	3913	ultraHd.jpg	12	15/06/2021 10:07:49
GreyScale	3856	ultraHd.jpg	12	15/06/2021 10:08:07

Average: 4088,5

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	187	ultraHd.jpg	2	16/06/2021 12:02:38
Grayscale	153	ultraHd.jpg	2	16/06/2021 12:02:54
Grayscale	312	ultraHd.jpg	2	16/06/2021 12:03:12
Grayscale	321	ultraHd.jpg	2	16/06/2021 12:03:34
Grayscale	407	ultraHd.jpg	2	16/06/2021 12:03:50
Grayscale	250	ultraHd.jpg	2	16/06/2021 12:04:04
Grayscale	324	ultraHd.jpg	2	16/06/2021 12:04:20
Grayscale	152	ultraHd.jpg	2	16/06/2021 12:04:47
Grayscale	354	ultraHd.jpg	2	16/06/2021 12:05:01
Grayscale	182	ultraHd.jpg	2	16/06/2021 12:05:16

Average: 264,2

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	283	ultraHd.jpg	4	16/06/2021 12:05:34
Grayscale	426	ultraHd.jpg	4	16/06/2021 12:06:02
Grayscale	364	ultraHd.jpg	4	16/06/2021 12:06:34
Grayscale	161	ultraHd.jpg	4	16/06/2021 12:06:48
Grayscale	293	ultraHd.jpg	4	16/06/2021 12:07:05
Grayscale	356	ultraHd.jpg	4	16/06/2021 12:07:29
Grayscale	339	ultraHd.jpg	4	16/06/2021 12:07:46
Grayscale	353	ultraHd.jpg	4	16/06/2021 12:08:17
Grayscale	315	ultraHd.jpg	4	16/06/2021 12:08:32
Grayscale	465	ultraHd.jpg	4	16/06/2021 12:08:50

Average: 335,5

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	275	ultraHd.jpg	8	16/06/2021 12:09:07
Grayscale	436	ultraHd.jpg	8	16/06/2021 12:09:23
Grayscale	184	ultraHd.jpg	8	16/06/2021 12:09:43
Grayscale	270	ultraHd.jpg	8	16/06/2021 12:09:58
Grayscale	366	ultraHd.jpg	8	16/06/2021 12:10:14
Grayscale	143	ultraHd.jpg	8	16/06/2021 12:10:31
Grayscale	185	ultraHd.jpg	8	16/06/2021 12:10:48
Grayscale	152	ultraHd.jpg	8	16/06/2021 12:11:07
Grayscale	375	ultraHd.jpg	8	16/06/2021 12:11:21
Grayscale	297	ultraHd.jpg	8	16/06/2021 12:11:38

Average: 268,3

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	263	ultraHd.jpg	12	16/06/2021 12:11:57
Grayscale	303	ultraHd.jpg	12	16/06/2021 12:12:18
Grayscale	365	ultraHd.jpg	12	16/06/2021 12:12:38
Grayscale	384	ultraHd.jpg	12	16/06/2021 12:12:53
Grayscale	367	ultraHd.jpg	12	16/06/2021 12:16:04
Grayscale	316	ultraHd.jpg	12	16/06/2021 12:16:18

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	147	ultraHd.jpg	12	16/06/2021 12:16:34
Grayscale	153	ultraHd.jpg	12	16/06/2021 12:16:59
Grayscale	375	ultraHd.jpg	12	16/06/2021 12:17:15
Grayscale	245	ultraHd.jpg	12	16/06/2021 12:17:31

Average: 291,8

# Greyscale

MacOS Processor: 3,1 GHz Dual-Core Intel Core i7

## Image turtle.jpg

### Sequential

Implementation Used	Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	110	turtle.jpg	--	15/06/2021 10:59:30	
Grayscale	124	turtle.jpg	--	15/06/2021 10:59:44	

Average: 117

### MultiThread

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	127	turtle.jpg	2	15/06/2021 11:00:45
GreyScale	129	turtle.jpg	2	15/06/2021 11:00:53

Average: 128

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	134	turtle.jpg	4	15/06/2021 11:01:25
GreyScale	140	turtle.jpg	4	15/06/2021 11:01:34

Average: 137

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	132	turtle.jpg	8	15/06/2021 11:01:53
GreyScale	138	turtle.jpg	8	15/06/2021 11:02:02

Average: 135

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	130	turtle.jpg	12	15/06/2021 11:02:48
GreyScale	131	turtle.jpg	12	15/06/2021 11:03:07

Average: 130,5

### Threadpool

#### 2 threads



Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	8	turtle.jpg	2	15/06/2021 11:03:40
Grayscale	7	turtle.jpg	2	15/06/2021 11:03:48

Average: 7,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	8	turtle.jpg	4	15/06/2021 11:04:09
Grayscale	16	turtle.jpg	4	15/06/2021 11:04:20

Average: 12

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	26	turtle.jpg	8	15/06/2021 11:05:03
Grayscale	24	turtle.jpg	8	15/06/2021 11:05:15

Average: 25

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	46	turtle.jpg	12	15/06/2021 11:05:22
Grayscale	29	turtle.jpg	12	15/06/2021 11:05:31

Average: 37,5

# Image cat.jpg

## Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	1692	cat.jpg	--	15/06/2021 11:06:20
Grayscale	1917	cat.jpg	--	15/06/2021 11:06:33

Average: 1804,5

## MultiThread

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	1621	cat.jpg	2	15/06/2021 11:07:19
GreyScale	1756	cat.jpg	2	15/06/2021 11:07:37

Average: 1688,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	1621	cat.jpg	4	15/06/2021 11:07:58
GreyScale	1718	cat.jpg	4	15/06/2021 11:08:16

Average: 1669,5

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	1766	cat.jpg	8	15/06/2021 11:08:39
GreyScale	1624	cat.jpg	8	15/06/2021 11:09:03

Average: 1695

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	1665	cat.jpg	12	15/06/2021 11:09:30
GreyScale	1902	cat.jpg	12	15/06/2021 11:09:48

Average: 1783,5

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	73	cat.jpg	2	15/06/2021 11:10:55
Grayscale	249	cat.jpg	2	15/06/2021 11:11:09

Average: 161

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	81	cat.jpg	4	15/06/2021 11:11:20
Grayscale	71	cat.jpg	4	15/06/2021 11:11:38

Average: 76

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	117	cat.jpg	8	15/06/2021 11:12:08
Grayscale	644	cat.jpg	8	15/06/2021 11:12:20

Average: 380,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
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Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	598	cat.jpg	12	15/06/2021 11:10:14
Grayscale	320	cat.jpg	12	15/06/2021 11:10:25

Average: 459

## Image tinycar.jpg

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### Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	39	tinycar.jpg	--	15/06/2021 11:13:02
Grayscale	36	tinycar.jpg	--	15/06/2021 11:13:12

Average: 37,5

### MultiThread

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	42	tinycar.jpg	2	15/06/2021 11:13:59
GreyScale	43	tinycar.jpg	2	15/06/2021 11:14:06

Average: 42,5

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	41	tinycar.jpg	4	15/06/2021 11:14:16
GreyScale	44	tinycar.jpg	4	15/06/2021 11:14:52

Average: 42,5

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	40	tinycar.jpg	8	15/06/2021 11:14:38
GreyScale	42	tinycar.jpg	8	15/06/2021 11:15:12

Average: 41

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	42	tinycar.jpg	12	15/06/2021 11:15:20
GreyScale	43	tinycar.jpg	12	15/06/2021 11:15:28

Average: 42,5

### Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	3	tinycar.jpg	2	15/06/2021 11:16:18
Grayscale	2	tinycar.jpg	2	15/06/2021 11:16:27

Average: 2,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	8	tinycar.jpg	4	15/06/2021 11:16:37
Grayscale	4	tinycar.jpg	4	15/06/2021 11:16:44

Average: 6

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	6	tinycar.jpg	8	15/06/2021 11:16:53
Grayscale	7	tinycar.jpg	8	15/06/2021 11:17:00

Average: 6,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	10	tinycar.jpg	12	15/06/2021 11:19:07
Grayscale	6	tinycar.jpg	12	15/06/2021 11:19:16

Average: 8

Image ultrahd.jpg

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Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	6984	ultrahd.jpg	--	15/06/2021 11:20:36
Grayscale	7856	ultrahd.jpg	--	15/06/2021 11:21:01

Average: 7420

MultiThread

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	7878	ultrahd.jpg	2	15/06/2021 11:21:44
GreyScale	5953	ultrahd.jpg	2	15/06/2021 11:22:26

Average: 6915,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	5891	ultrahd.jpg	4	15/06/2021 11:22:56
GreyScale	5853	ultrahd.jpg	4	15/06/2021 11:23:35

Average: 5872

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	5891	ultrahd.jpg	8	15/06/2021 11:24:07
GreyScale	14035	ultrahd.jpg	8	15/06/2021 11:24:47

Average: 9963

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
GreyScale	5865	ultrahd.jpg	12	15/06/2021 11:25:44
GreyScale	6359	ultrahd.jpg	12	15/06/2021 11:26:18

Average: 6112

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	637	ultrahd.jpg	2	15/06/2021 11:26:53
Grayscale	520	ultrahd.jpg	2	15/06/2021 11:27:13

Average: 578,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	443	ultrahd.jpg	4	15/06/2021 11:27:48
Grayscale	617	ultrahd.jpg	4	15/06/2021 11:28:08

Average: 530

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	491	ultrahd.jpg	8	15/06/2021 11:28:40
Grayscale	708	ultrahd.jpg	8	15/06/2021 11:29:01

Average: 599,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
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Filter Used	Duration	File Used	Number of Threads	Date
Grayscale	984	ultrahd.jpg	12	15/06/2021 11:29:26
Grayscale	1112	ultrahd.jpg	12	15/06/2021 11:30:26

Average: 1048

# Swirl

Windows - Processor: Intel(R) Core(TM) i7-8665U CPU @ 1.90GHz 2.11 GHz

## Image cat.jpg

### Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	2673	cat.jpg	--	15/06/2021 08:56:45
Swirl	2534	cat.jpg	--	15/06/2021 08:56:54
Swirl	2562	cat.jpg	--	15/06/2021 08:57:23
Swirl	2467	cat.jpg	--	15/06/2021 08:57:32
Swirl	2798	cat.jpg	--	15/06/2021 08:57:43
Swirl	2544	cat.jpg	--	15/06/2021 08:57:51
Swirl	2570	cat.jpg	--	15/06/2021 08:58:01
Swirl	2559	cat.jpg	--	15/06/2021 08:58:12
Swirl	2476	cat.jpg	--	15/06/2021 08:58:19
Swirl	2767	cat.jpg	--	15/06/2021 08:58:27

Average: 2595

### MultiThread

#### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	1912	cat.jpg	2	15/06/2021 10:09:00
Swirl	1846	cat.jpg	2	15/06/2021 10:09:30
Swirl	1951	cat.jpg	2	15/06/2021 10:09:40
Swirl	1947	cat.jpg	2	15/06/2021 10:09:49
Swirl	1912	cat.jpg	2	15/06/2021 10:09:59
Swirl	1837	cat.jpg	2	15/06/2021 10:10:23
Swirl	2138	cat.jpg	2	15/06/2021 10:10:38
Swirl	2057	cat.jpg	2	15/06/2021 10:10:50
Swirl	1926	cat.jpg	2	15/06/2021 10:10:59
Swirl	1873	cat.jpg	2	15/06/2021 10:11:10

Average: 1939,9

#### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	1632	cat.jpg	4	15/06/2021 10:18:31
Swirl	1647	cat.jpg	4	15/06/2021 10:18:40
Swirl	1589	cat.jpg	4	15/06/2021 10:18:48
Swirl	1638	cat.jpg	4	15/06/2021 10:18:56
Swirl	1836	cat.jpg	4	15/06/2021 10:19:05
Swirl	1639	cat.jpg	4	15/06/2021 10:19:15
Swirl	1586	cat.jpg	4	15/06/2021 10:19:24
Swirl	1639	cat.jpg	4	15/06/2021 10:19:35
Swirl	1655	cat.jpg	4	15/06/2021 10:19:44
Swirl	1637	cat.jpg	4	15/06/2021 10:19:53

Average: 1649,8

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	1530	cat.jpg	8	15/06/2021 10:24:15
Swirl	1540	cat.jpg	8	15/06/2021 10:24:23
Swirl	1523	cat.jpg	8	15/06/2021 10:24:32
Swirl	1510	cat.jpg	8	15/06/2021 10:24:40
Swirl	1574	cat.jpg	8	15/06/2021 10:24:49
Swirl	1570	cat.jpg	8	15/06/2021 10:24:57
Swirl	1493	cat.jpg	8	15/06/2021 10:25:05
Swirl	1566	cat.jpg	8	15/06/2021 10:25:14
Swirl	1515	cat.jpg	8	15/06/2021 10:25:24
Swirl	1301	cat.jpg	8	15/06/2021 10:25:32

Average: 1512,2

#### 12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	1518	cat.jpg	12	15/06/2021 10:25:41
Swirl	1333	cat.jpg	12	15/06/2021 10:25:49
Swirl	1481	cat.jpg	12	15/06/2021 10:25:56
Swirl	1364	cat.jpg	12	15/06/2021 10:26:04
Swirl	1484	cat.jpg	12	15/06/2021 10:26:12



Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	1340	cat.jpg	12	15/06/2021 10:26:19
Swirl	1521	cat.jpg	12	15/06/2021 10:26:27
Swirl	1563	cat.jpg	12	15/06/2021 10:26:36
Swirl	1520	cat.jpg	12	15/06/2021 10:26:43
Swirl	1530	cat.jpg	12	15/06/2021 10:26:52

Average: 1465,4

## Threadpool

### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	156	cat.jpg	2	16/06/2021 12:35:34
Swirl	120	cat.jpg	2	16/06/2021 12:35:42
Swirl	113	cat.jpg	2	16/06/2021 12:35:51
Swirl	225	cat.jpg	2	16/06/2021 12:36:00
Swirl	112	cat.jpg	2	16/06/2021 12:36:09
Swirl	122	cat.jpg	2	16/06/2021 12:36:17
Swirl	103	cat.jpg	2	16/06/2021 12:36:26
Swirl	113	cat.jpg	2	16/06/2021 12:36:34
Swirl	98	cat.jpg	2	16/06/2021 12:36:43
Swirl	100	cat.jpg	2	16/06/2021 12:36:51

Average: 126,2

### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	107	cat.jpg	4	16/06/2021 12:37:00
Swirl	116	cat.jpg	4	16/06/2021 12:37:09
Swirl	110	cat.jpg	4	16/06/2021 12:37:17
Swirl	103	cat.jpg	4	16/06/2021 12:37:26
Swirl	113	cat.jpg	4	16/06/2021 12:37:34
Swirl	137	cat.jpg	4	16/06/2021 12:37:42
Swirl	136	cat.jpg	4	16/06/2021 12:37:49
Swirl	109	cat.jpg	4	16/06/2021 12:37:57
Swirl	115	cat.jpg	4	16/06/2021 12:38:04
Swirl	123	cat.jpg	4	16/06/2021 12:38:13

Average: 116,9

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	251	cat.jpg	8	16/06/2021 12:38:31
Swirl	130	cat.jpg	8	16/06/2021 12:38:43
Swirl	246	cat.jpg	8	16/06/2021 12:38:52
Swirl	108	cat.jpg	8	16/06/2021 12:39:00
Swirl	106	cat.jpg	8	16/06/2021 12:39:08
Swirl	127	cat.jpg	8	16/06/2021 12:39:16
Swirl	132	cat.jpg	8	16/06/2021 12:39:23
Swirl	110	cat.jpg	8	16/06/2021 12:39:31
Swirl	223	cat.jpg	8	16/06/2021 12:39:41
Swirl	106	cat.jpg	8	16/06/2021 12:39:49

Average: 153,9

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	101	cat.jpg	12	16/06/2021 12:40:11
Swirl	116	cat.jpg	12	16/06/2021 12:40:19
Swirl	222	cat.jpg	12	16/06/2021 12:40:29
Swirl	195	cat.jpg	12	16/06/2021 12:40:40
Swirl	218	cat.jpg	12	16/06/2021 12:40:50
Swirl	111	cat.jpg	12	16/06/2021 12:40:59
Swirl	103	cat.jpg	12	16/06/2021 12:41:08
Swirl	139	cat.jpg	12	16/06/2021 12:41:17
Swirl	152	cat.jpg	12	16/06/2021 12:41:26
Swirl	117	cat.jpg	12	16/06/2021 12:41:34

Average: 147,4

Image turtle.jpg - MultiThread - Average time of execution

Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	100	turtle.jpg	--	15/06/2021 08:58:32
Swirl	121	turtle.jpg	--	15/06/2021 08:58:37
Swirl	113	turtle.jpg	--	15/06/2021 08:58:41

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	107	turtle.jpg	--	15/06/2021 08:58:46
Swirl	104	turtle.jpg	--	15/06/2021 08:58:51
Swirl	101	turtle.jpg	--	15/06/2021 08:58:56
Swirl	97	turtle.jpg	--	15/06/2021 08:59:02
Swirl	127	turtle.jpg	--	15/06/2021 08:59:07
Swirl	112	turtle.jpg	--	15/06/2021 08:59:12
Swirl	110	turtle.jpg	--	15/06/2021 08:59:16

Average: 109,2

MultiThread

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	103	turtle.jpg	2	15/06/2021 10:37:47
Swirl	102	turtle.jpg	2	15/06/2021 10:37:56
Swirl	93	turtle.jpg	2	15/06/2021 10:38:02
Swirl	110	turtle.jpg	2	15/06/2021 10:38:07
Swirl	103	turtle.jpg	2	15/06/2021 10:38:12
Swirl	105	turtle.jpg	2	15/06/2021 10:38:17
Swirl	103	turtle.jpg	2	15/06/2021 10:38:22
Swirl	103	turtle.jpg	2	15/06/2021 10:38:27
Swirl	97	turtle.jpg	2	15/06/2021 10:38:32
Swirl	105	turtle.jpg	2	15/06/2021 10:38:37

Average: 102,4

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	119	turtle.jpg	4	15/06/2021 10:38:48
Swirl	106	turtle.jpg	4	15/06/2021 10:38:53
Swirl	120	turtle.jpg	4	15/06/2021 10:38:58
Swirl	101	turtle.jpg	4	15/06/2021 10:39:03
Swirl	100	turtle.jpg	4	15/06/2021 10:39:08
Swirl	107	turtle.jpg	4	15/06/2021 10:39:14
Swirl	105	turtle.jpg	4	15/06/2021 10:39:25

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	118	turtle.jpg	4	15/06/2021 10:39:30
Swirl	101	turtle.jpg	4	15/06/2021 10:39:35
Swirl	105	turtle.jpg	4	15/06/2021 10:39:40

Average: 108,2

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	107	turtle.jpg	8	15/06/2021 10:39:46
Swirl	104	turtle.jpg	8	15/06/2021 10:39:52
Swirl	107	turtle.jpg	8	15/06/2021 10:39:56
Swirl	98	turtle.jpg	8	15/06/2021 10:40:02
Swirl	103	turtle.jpg	8	15/06/2021 10:40:08
Swirl	106	turtle.jpg	8	15/06/2021 10:40:18
Swirl	109	turtle.jpg	8	15/06/2021 10:40:27
Swirl	107	turtle.jpg	8	15/06/2021 10:40:32
Swirl	106	turtle.jpg	8	15/06/2021 10:40:37
Swirl	103	turtle.jpg	8	15/06/2021 10:40:42

Average: 105

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	105	turtle.jpg	12	15/06/2021 10:40:48
Swirl	125	turtle.jpg	12	15/06/2021 10:40:54
Swirl	114	turtle.jpg	12	15/06/2021 10:40:59
Swirl	106	turtle.jpg	12	15/06/2021 10:41:04
Swirl	110	turtle.jpg	12	15/06/2021 10:41:08
Swirl	116	turtle.jpg	12	15/06/2021 10:41:16
Swirl	115	turtle.jpg	12	15/06/2021 10:41:23
Swirl	109	turtle.jpg	12	15/06/2021 10:41:28
Swirl	108	turtle.jpg	12	15/06/2021 10:41:33
Swirl	116	turtle.jpg	12	15/06/2021 10:41:38

Average: 112,4

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	19	turtle.jpg	2	16/06/2021 12:51:06
Swirl	16	turtle.jpg	2	16/06/2021 12:51:12
Swirl	15	turtle.jpg	2	16/06/2021 12:51:17
Swirl	16	turtle.jpg	2	16/06/2021 12:51:21
Swirl	22	turtle.jpg	2	16/06/2021 12:51:26
Swirl	16	turtle.jpg	2	16/06/2021 12:51:30
Swirl	21	turtle.jpg	2	16/06/2021 12:51:35
Swirl	15	turtle.jpg	2	16/06/2021 12:51:40
Swirl	24	turtle.jpg	2	16/06/2021 12:51:46
Swirl	16	turtle.jpg	2	16/06/2021 12:51:52

Average: 18

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	19	turtle.jpg	4	16/06/2021 12:51:56
Swirl	15	turtle.jpg	4	16/06/2021 12:52:00
Swirl	16	turtle.jpg	4	16/06/2021 12:52:05
Swirl	32	turtle.jpg	4	16/06/2021 12:52:09
Swirl	31	turtle.jpg	4	16/06/2021 12:52:13
Swirl	16	turtle.jpg	4	16/06/2021 12:52:17
Swirl	16	turtle.jpg	4	16/06/2021 12:52:21
Swirl	35	turtle.jpg	4	16/06/2021 12:52:25
Swirl	30	turtle.jpg	4	16/06/2021 12:52:32
Swirl	18	turtle.jpg	4	16/06/2021 12:52:41

Average: 22,8

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	15	turtle.jpg	8	16/06/2021 12:52:47
Swirl	33	turtle.jpg	8	16/06/2021 12:52:52
Swirl	16	turtle.jpg	8	16/06/2021 12:52:57
Swirl	15	turtle.jpg	8	16/06/2021 12:53:02
Swirl	25	turtle.jpg	8	16/06/2021 12:53:07

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	16	turtle.jpg	8	16/06/2021 12:53:11
Swirl	17	turtle.jpg	8	16/06/2021 12:53:18
Swirl	16	turtle.jpg	8	16/06/2021 12:53:29
Swirl	25	turtle.jpg	8	16/06/2021 12:53:33
Swirl	15	turtle.jpg	8	16/06/2021 12:53:38

Average: 19,3

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	15	turtle.jpg	12	16/06/2021 12:53:46
Swirl	23	turtle.jpg	12	16/06/2021 12:53:52
Swirl	31	turtle.jpg	12	16/06/2021 12:53:57
Swirl	17	turtle.jpg	12	16/06/2021 12:54:04
Swirl	25	turtle.jpg	12	16/06/2021 12:54:09
Swirl	29	turtle.jpg	12	16/06/2021 12:54:13
Swirl	27	turtle.jpg	12	16/06/2021 12:54:19
Swirl	23	turtle.jpg	12	16/06/2021 12:54:24
Swirl	16	turtle.jpg	12	16/06/2021 12:54:29
Swirl	31	turtle.jpg	12	16/06/2021 12:54:33

Average: 23,7

Image tinyCar.jpg

Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	38	tinyCar.jpg	--	15/06/2021 08:59:23
Swirl	32	tinyCar.jpg	--	15/06/2021 08:59:28
Swirl	32	tinyCar.jpg	--	15/06/2021 08:59:32
Swirl	31	tinyCar.jpg	--	15/06/2021 08:59:37
Swirl	28	tinyCar.jpg	--	15/06/2021 08:59:42
Swirl	27	tinyCar.jpg	--	15/06/2021 08:59:46
Swirl	47	tinyCar.jpg	--	15/06/2021 08:59:50
Swirl	43	tinyCar.jpg	--	15/06/2021 08:59:54
Swirl	41	tinyCar.jpg	--	15/06/2021 09:00:01
Swirl	44	tinyCar.jpg	--	15/06/2021 09:00:05

Average: 36,3

MultiThread

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	41	tinyCar.jpg	2	15/06/2021 10:42:27
Swirl	46	tinyCar.jpg	2	15/06/2021 10:42:32
Swirl	35	tinyCar.jpg	2	15/06/2021 10:42:37
Swirl	37	tinyCar.jpg	2	15/06/2021 10:42:42
Swirl	47	tinyCar.jpg	2	15/06/2021 10:42:47
Swirl	43	tinyCar.jpg	2	15/06/2021 10:42:51
Swirl	42	tinyCar.jpg	2	15/06/2021 10:42:56
Swirl	30	tinyCar.jpg	2	15/06/2021 10:43:01
Swirl	49	tinyCar.jpg	2	15/06/2021 10:43:05
Swirl	37	tinyCar.jpg	2	15/06/2021 10:43:10

Average: 40,7

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	36	tinyCar.jpg	4	15/06/2021 10:43:15
Swirl	37	tinyCar.jpg	4	15/06/2021 10:43:20
Swirl	42	tinyCar.jpg	4	15/06/2021 10:43:24
Swirl	38	tinyCar.jpg	4	15/06/2021 10:43:29
Swirl	35	tinyCar.jpg	4	15/06/2021 10:43:34
Swirl	44	tinyCar.jpg	4	15/06/2021 10:43:39
Swirl	24	tinyCar.jpg	4	15/06/2021 10:43:44
Swirl	38	tinyCar.jpg	4	15/06/2021 10:43:50
Swirl	41	tinyCar.jpg	4	15/06/2021 10:43:55
Swirl	30	tinyCar.jpg	4	15/06/2021 10:44:01

Average: 36,5

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	31	tinyCar.jpg	8	15/06/2021 10:44:08
Swirl	34	tinyCar.jpg	8	15/06/2021 10:44:14

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	33	tinyCar.jpg	8	15/06/2021 10:44:20
Swirl	32	tinyCar.jpg	8	15/06/2021 10:44:25
Swirl	42	tinyCar.jpg	8	15/06/2021 10:44:30
Swirl	36	tinyCar.jpg	8	15/06/2021 10:44:41
Swirl	33	tinyCar.jpg	8	15/06/2021 10:44:48
Swirl	37	tinyCar.jpg	8	15/06/2021 10:44:54
Swirl	38	tinyCar.jpg	8	15/06/2021 10:44:59
Swirl	35	tinyCar.jpg	8	15/06/2021 10:45:05

Average: 35,1

#### 12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	38	tinyCar.jpg	12	15/06/2021 10:45:11
Swirl	40	tinyCar.jpg	12	15/06/2021 10:45:16
Swirl	38	tinyCar.jpg	12	15/06/2021 10:45:20
Swirl	36	tinyCar.jpg	12	15/06/2021 10:45:33
Swirl	61	tinyCar.jpg	12	15/06/2021 10:45:37
Swirl	54	tinyCar.jpg	12	15/06/2021 10:45:45
Swirl	50	tinyCar.jpg	12	15/06/2021 10:45:51
Swirl	69	tinyCar.jpg	12	15/06/2021 10:45:56
Swirl	41	tinyCar.jpg	12	15/06/2021 10:46:01
Swirl	47	tinyCar.jpg	12	15/06/2021 10:46:10

Average: 47,4

#### Threadpool

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	0	tinyCar.jpg	2	16/06/2021 12:55:16
Swirl	0	tinyCar.jpg	2	16/06/2021 12:55:20
Swirl	17	tinyCar.jpg	2	16/06/2021 12:55:24
Swirl	0	tinyCar.jpg	2	16/06/2021 12:55:31
Swirl	0	tinyCar.jpg	2	16/06/2021 12:55:35
Swirl	0	tinyCar.jpg	2	16/06/2021 12:55:39



Filter Used	Duration	File Used	Number of Threads	Date
Swirl	0	tinyCar.jpg	2	16/06/2021 12:55:43
Swirl	16	tinyCar.jpg	2	16/06/2021 12:55:50
Swirl	0	tinyCar.jpg	2	16/06/2021 12:55:54
Swirl	16	tinyCar.jpg	2	16/06/2021 12:55:58

Average: 4,9

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	0	tinyCar.jpg	4	16/06/2021 12:56:02
Swirl	0	tinyCar.jpg	4	16/06/2021 12:56:07
Swirl	16	tinyCar.jpg	4	16/06/2021 12:56:11
Swirl	0	tinyCar.jpg	4	16/06/2021 12:56:16
Swirl	0	tinyCar.jpg	4	16/06/2021 12:56:20
Swirl	0	tinyCar.jpg	4	16/06/2021 12:56:24
Swirl	16	tinyCar.jpg	4	16/06/2021 12:56:29
Swirl	0	tinyCar.jpg	4	16/06/2021 12:56:33
Swirl	0	tinyCar.jpg	4	16/06/2021 12:56:37
Swirl	0	tinyCar.jpg	4	16/06/2021 12:56:42

Average: 3,2

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	0	tinyCar.jpg	8	16/06/2021 12:56:47
Swirl	16	tinyCar.jpg	8	16/06/2021 12:56:52
Swirl	0	tinyCar.jpg	8	16/06/2021 12:56:59
Swirl	0	tinyCar.jpg	8	16/06/2021 12:57:03
Swirl	0	tinyCar.jpg	8	16/06/2021 12:57:11
Swirl	16	tinyCar.jpg	8	16/06/2021 12:57:17
Swirl	0	tinyCar.jpg	8	16/06/2021 12:57:21
Swirl	0	tinyCar.jpg	8	16/06/2021 12:57:28
Swirl	0	tinyCar.jpg	8	16/06/2021 12:57:33
Swirl	0	tinyCar.jpg	8	16/06/2021 12:57:38

Average: 3,2

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	0	tinyCar.jpg	12	16/06/2021 12:57:44
Swirl	0	tinyCar.jpg	12	16/06/2021 12:57:55
Swirl	8	tinyCar.jpg	12	16/06/2021 12:58:04
Swirl	18	tinyCar.jpg	12	16/06/2021 12:58:09
Swirl	15	tinyCar.jpg	12	16/06/2021 12:58:14
Swirl	16	tinyCar.jpg	12	16/06/2021 12:58:20
Swirl	5	tinyCar.jpg	12	16/06/2021 12:58:25
Swirl	0	tinyCar.jpg	12	16/06/2021 12:58:32
Swirl	0	tinyCar.jpg	12	16/06/2021 12:58:38
Swirl	0	tinyCar.jpg	12	16/06/2021 12:58:43

Average: 6,2

## Image ultraHd.jpg

### Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	11001	ultraHd.jpg	--	15/06/2021 09:01:42
Swirl	11004	ultraHd.jpg	--	15/06/2021 09:02:11
Swirl	11383	ultraHd.jpg	--	15/06/2021 09:02:56
Swirl	11636	ultraHd.jpg	--	15/06/2021 09:03:21
Swirl	10925	ultraHd.jpg	--	15/06/2021 09:03:43
Swirl	11775	ultraHd.jpg	--	15/06/2021 09:04:06
Swirl	11025	ultraHd.jpg	--	15/06/2021 09:04:27
Swirl	11073	ultraHd.jpg	--	15/06/2021 09:04:47
Swirl	11683	ultraHd.jpg	--	15/06/2021 09:05:48
Swirl	12192	ultraHd.jpg	--	15/06/2021 09:06:11

Average: 11369,7

### MultiThread

#### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	7755	ultraHd.jpg	2	15/06/2021 10:47:16
Swirl	7384	ultraHd.jpg	2	15/06/2021 10:53:00
Swirl	7856	ultraHd.jpg	2	15/06/2021 10:53:19

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	7651	ultraHd.jpg	2	15/06/2021 10:53:41
Swirl	7487	ultraHd.jpg	2	15/06/2021 10:53:59
Swirl	7464	ultraHd.jpg	2	15/06/2021 10:54:19
Swirl	7360	ultraHd.jpg	2	15/06/2021 10:54:37
Swirl	7951	ultraHd.jpg	2	15/06/2021 10:55:19
Swirl	8079	ultraHd.jpg	2	15/06/2021 10:55:41
Swirl	7300	ultraHd.jpg	2	15/06/2021 10:56:34

Average: 7628,7

#### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	5836	ultraHd.jpg	4	15/06/2021 10:57:10
Swirl	6822	ultraHd.jpg	4	15/06/2021 10:57:39
Swirl	6538	ultraHd.jpg	4	15/06/2021 10:57:57
Swirl	5829	ultraHd.jpg	4	15/06/2021 10:58:19
Swirl	6418	ultraHd.jpg	4	15/06/2021 10:58:40
Swirl	5829	ultraHd.jpg	4	15/06/2021 10:58:58
Swirl	6138	ultraHd.jpg	4	15/06/2021 10:59:16
Swirl	5778	ultraHd.jpg	4	15/06/2021 10:59:41
Swirl	6172	ultraHd.jpg	4	15/06/2021 10:59:59
Swirl	6421	ultraHd.jpg	4	15/06/2021 11:00:19

Average: 6178,1

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	5373	ultraHd.jpg	8	15/06/2021 11:03:02
Swirl	5000	ultraHd.jpg	8	15/06/2021 11:03:19
Swirl	5041	ultraHd.jpg	8	15/06/2021 11:03:36
Swirl	5105	ultraHd.jpg	8	15/06/2021 11:03:52
Swirl	5635	ultraHd.jpg	8	15/06/2021 11:04:11
Swirl	5082	ultraHd.jpg	8	15/06/2021 11:04:28
Swirl	5670	ultraHd.jpg	8	15/06/2021 11:04:46
Swirl	5777	ultraHd.jpg	8	15/06/2021 11:05:05

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	6178	ultraHd.jpg	8	15/06/2021 11:05:24
Swirl	5471	ultraHd.jpg	8	15/06/2021 11:05:58

Average: 5433,2

## 12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Swirl	5884	ultraHd.jpg	12	15/06/2021 11:06:18
Swirl	4974	ultraHd.jpg	12	15/06/2021 11:06:43
Swirl	5180	ultraHd.jpg	12	15/06/2021 11:07:12
Swirl	5319	ultraHd.jpg	12	15/06/2021 11:07:29
Swirl	5007	ultraHd.jpg	12	15/06/2021 11:07:44
Swirl	4859	ultraHd.jpg	12	15/06/2021 11:07:59
Swirl	5066	ultraHd.jpg	12	15/06/2021 11:08:16
Swirl	5201	ultraHd.jpg	12	15/06/2021 11:08:31
Swirl	5454	ultraHd.jpg	12	15/06/2021 11:08:48
Swirl	5933	ultraHd.jpg	12	15/06/2021 11:09:08

Average: 5287,7

## Threadpool

### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	753	ultraHd.jpg	2	16/06/2021 01:00:11
Swirl	677	ultraHd.jpg	2	16/06/2021 01:00:32
Swirl	521	ultraHd.jpg	2	16/06/2021 01:00:52
Swirl	762	ultraHd.jpg	2	16/06/2021 01:01:13
Swirl	477	ultraHd.jpg	2	16/06/2021 01:01:37
Swirl	565	ultraHd.jpg	2	16/06/2021 01:02:08
Swirl	550	ultraHd.jpg	2	16/06/2021 01:02:28
Swirl	452	ultraHd.jpg	2	16/06/2021 01:02:51
Swirl	422	ultraHd.jpg	2	16/06/2021 01:03:10
Swirl	697	ultraHd.jpg	2	16/06/2021 01:03:30

Average: 587,6

### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	721	ultraHd.jpg	4	16/06/2021 01:03:59
Swirl	503	ultraHd.jpg	4	16/06/2021 01:04:24
Swirl	618	ultraHd.jpg	4	16/06/2021 01:04:41
Swirl	533	ultraHd.jpg	4	16/06/2021 01:05:00
Swirl	621	ultraHd.jpg	4	16/06/2021 01:05:19
Swirl	439	ultraHd.jpg	4	16/06/2021 01:05:37
Swirl	499	ultraHd.jpg	4	16/06/2021 01:05:59
Swirl	771	ultraHd.jpg	4	16/06/2021 01:06:24
Swirl	450	ultraHd.jpg	4	16/06/2021 01:06:41
Swirl	575	ultraHd.jpg	4	16/06/2021 01:06:59

Average: 573

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	500	ultraHd.jpg	8	16/06/2021 01:07:16
Swirl	444	ultraHd.jpg	8	16/06/2021 01:07:34
Swirl	581	ultraHd.jpg	8	16/06/2021 01:07:51
Swirl	451	ultraHd.jpg	8	16/06/2021 01:08:08
Swirl	639	ultraHd.jpg	8	16/06/2021 01:08:53
Swirl	520	ultraHd.jpg	8	16/06/2021 01:09:10
Swirl	622	ultraHd.jpg	8	16/06/2021 01:09:28
Swirl	652	ultraHd.jpg	8	16/06/2021 01:09:47
Swirl	561	ultraHd.jpg	8	16/06/2021 01:10:06
Swirl	613	ultraHd.jpg	8	16/06/2021 01:10:22

Average: 558,3

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	598	ultraHd.jpg	12	16/06/2021 01:10:44
Swirl	458	ultraHd.jpg	12	16/06/2021 01:11:02
Swirl	590	ultraHd.jpg	12	16/06/2021 01:11:18
Swirl	498	ultraHd.jpg	12	16/06/2021 01:11:42
Swirl	438	ultraHd.jpg	12	16/06/2021 01:12:09
Swirl	731	ultraHd.jpg	12	16/06/2021 01:12:29

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	621	ultraHd.jpg	12	16/06/2021 01:12:52
Swirl	490	ultraHd.jpg	12	16/06/2021 01:13:11
Swirl	549	ultraHd.jpg	12	16/06/2021 01:13:29
Swirl	486	ultraHd.jpg	12	16/06/2021 01:13:49

Average: 545,9

# Swirl

MacOS - Processor: 3,1 GHz Dual-Core Intel Core i7

## Image turtle.jpg

### Sequential

Implementation Used	Filter Used	Duration	File Used	Number of Threads	Date
Swirl	157	turtle.jpg	--	15/06/2021 11:32:50	
Swirl	146	turtle.jpg	--	15/06/2021 11:32:59	

Average: 151,5

### Multithread

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	160	turtle.jpg	2	15/06/2021 11:36:10
Swirl	149	turtle.jpg	2	15/06/2021 11:36:19

Average: 154,5

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	153	turtle.jpg	4	15/06/2021 11:36:28
Swirl	152	turtle.jpg	4	15/06/2021 11:36:39

Average: 152,5

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	155	turtle.jpg	8	15/06/2021 11:36:53
Swirl	154	turtle.jpg	8	15/06/2021 11:37:19

Average: 154,5

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	154	turtle.jpg	12	15/06/2021 11:37:27
Swirl	150	turtle.jpg	12	15/06/2021 11:37:50

Average: 152

### Threadpool

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	13	turtle.jpg	2	15/06/2021 11:38:50
Swirl	13	turtle.jpg	2	15/06/2021 11:38:58

Average: 13

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	12	turtle.jpg	4	15/06/2021 11:39:07
Swirl	12	turtle.jpg	4	15/06/2021 11:39:29

Average: 12

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	44	turtle.jpg	8	15/06/2021 11:39:44
Swirl	71	turtle.jpg	8	15/06/2021 11:39:53

Average: 57,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	61	turtle.jpg	12	15/06/2021 11:40:02
Swirl	49	turtle.jpg	12	15/06/2021 11:40:11

Average: 55

# Image cat.jpg

## Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	3635	cat.jpg	--	15/06/2021 11:41:17
Swirl	5081	cat.jpg	--	15/06/2021 11:41:27

Average: 4358

## Multithread

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	2532	cat.jpg	2	15/06/2021 11:42:02
Swirl	2663	cat.jpg	2	15/06/2021 11:42:15

Average: 2597,5

4 threads



Filter Used	Duration	File Used	Number of Threads	Date
Swirl	2421	cat.jpg	4	15/06/2021 11:42:33
Swirl	2336	cat.jpg	4	15/06/2021 11:42:52

Average: 2378,5

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	2272	cat.jpg	8	15/06/2021 11:43:14
Swirl	2184	cat.jpg	8	15/06/2021 11:43:28

Average: 2228

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	2156	cat.jpg	12	15/06/2021 11:44:01
Swirl	2299	cat.jpg	12	15/06/2021 11:44:16

Average: 2227,5

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	104	cat.jpg	2	15/06/2021 11:45:14
Swirl	237	cat.jpg	2	15/06/2021 11:45:33

Average: 170,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	144	cat.jpg	4	15/06/2021 11:45:53
Swirl	425	cat.jpg	4	15/06/2021 11:46:02

Average: 284,5

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	372	cat.jpg	8	15/06/2021 11:46:15
Swirl	221	cat.jpg	8	15/06/2021 11:46:27

Average: 296,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
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Filter Used	Duration	File Used	Number of Threads	Date
Swirl	291	cat.jpg	12	15/06/2021 11:46:40
Swirl	487	cat.jpg	12	15/06/2021 11:46:57

Average: 389

## Image tinycar.jpg

### Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	44	tinycar.jpg	--	15/06/2021 11:48:04
Swirl	43	tinycar.jpg	--	15/06/2021 11:48:16

Average: 43,5

### Multithread

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	43	tinycar.jpg	2	15/06/2021 11:49:05
Swirl	44	tinycar.jpg	2	15/06/2021 11:49:12

Average: 43,5

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	42	tinycar.jpg	4	15/06/2021 11:49:21
Swirl	49	tinycar.jpg	4	15/06/2021 11:49:30

Average: 45,5

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	47	tinycar.jpg	8	15/06/2021 11:49:43
Swirl	43	tinycar.jpg	8	15/06/2021 11:49:55

Average: 45

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	44	tinycar.jpg	12	15/06/2021 11:50:04
Swirl	49	tinycar.jpg	12	15/06/2021 11:50:15

Average: 46,5

### Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	5	tinycar.jpg	2	15/06/2021 11:51:13
Swirl	3	tinycar.jpg	2	15/06/2021 11:51:23

Average: 4

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	6	tinycar.jpg	4	15/06/2021 11:51:31
Swirl	5	tinycar.jpg	4	15/06/2021 11:51:40

Average: 5,5

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	11	tinycar.jpg	8	15/06/2021 11:51:52
Swirl	10	tinycar.jpg	8	15/06/2021 11:52:04

Average: 10,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	11	tinycar.jpg	12	15/06/2021 11:52:16
Swirl	10	tinycar.jpg	12	15/06/2021 11:52:24

Average: 10,5

Image ultrahd.jpg

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Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	19737	ultrahd.jpg	--	15/06/2021 11:53:43
Swirl	20324	ultrahd.jpg	--	15/06/2021 11:54:21

Average: 20030,5

Multithread

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	12290	ultrahd.jpg	2	15/06/2021 11:56:11

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
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Filter Used	Duration	File Used	Number of Threads	Date
Swirl	10070	ultrahd.jpg	4	15/06/2021 11:56:44

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	10417	ultrahd.jpg	8	15/06/2021 11:57:12

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	9358	ultrahd.jpg	12	15/06/2021 11:57:44

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	944	ultrahd.jpg	2	15/06/2021 11:58:37
Swirl	1280	ultrahd.jpg	2	15/06/2021 11:59:11

Average: 1112

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	1249	ultrahd.jpg	4	15/06/2021 11:59:43
Swirl	1212	ultrahd.jpg	4	16/06/2021 12:00:09

Average: 1230,5

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	973	ultrahd.jpg	8	16/06/2021 12:00:32
Swirl	1010	ultrahd.jpg	8	16/06/2021 12:00:58

Average: 991,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Swirl	1221	ultrahd.jpg	12	16/06/2021 12:01:22
Swirl	1374	ultrahd.jpg	12	16/06/2021 12:01:48

Average: 1297,5

# Glass

Windows - Processor: Intel(R) Core(TM) i7-8665U CPU @ 1.90GHz 2.11 GHz

## Image cat.jpg

### Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	1728	cat.jpg	--	15/06/2021 09:07:46
Glass	1694	cat.jpg	--	15/06/2021 09:07:54
Glass	1692	cat.jpg	--	15/06/2021 09:08:02
Glass	1709	cat.jpg	--	15/06/2021 09:08:10
Glass	1780	cat.jpg	--	15/06/2021 09:09:06
Glass	2011	cat.jpg	--	15/06/2021 09:09:23
Glass	1663	cat.jpg	--	15/06/2021 09:09:30
Glass	1533	cat.jpg	--	15/06/2021 09:09:39
Glass	1558	cat.jpg	--	15/06/2021 09:09:46
Glass	1694	cat.jpg	--	15/06/2021 09:09:53

Average: 1706,2

### MultiThread

#### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	1788	cat.jpg	2	15/06/2021 10:11:18
Glass	1790	cat.jpg	2	15/06/2021 10:11:27
Glass	1562	cat.jpg	2	15/06/2021 10:11:36
Glass	1713	cat.jpg	2	15/06/2021 10:11:44
Glass	1761	cat.jpg	2	15/06/2021 10:11:52
Glass	1778	cat.jpg	2	15/06/2021 10:12:01
Glass	1710	cat.jpg	2	15/06/2021 10:12:09
Glass	1794	cat.jpg	2	15/06/2021 10:12:17
Glass	1784	cat.jpg	2	15/06/2021 10:12:26
Glass	1850	cat.jpg	2	15/06/2021 10:12:34

Average: 1753

#### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	1915	cat.jpg	4	15/06/2021 10:20:05
Glass	1999	cat.jpg	4	15/06/2021 10:20:20
Glass	2043	cat.jpg	4	15/06/2021 10:20:29
Glass	1925	cat.jpg	4	15/06/2021 10:20:56
Glass	2049	cat.jpg	4	15/06/2021 10:21:07
Glass	2021	cat.jpg	4	15/06/2021 10:21:21
Glass	1978	cat.jpg	4	15/06/2021 10:21:37
Glass	1945	cat.jpg	4	15/06/2021 10:21:55
Glass	2011	cat.jpg	4	15/06/2021 10:22:03
Glass	2070	cat.jpg	4	15/06/2021 10:22:12

Average: 1995,6

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	2161	cat.jpg	8	15/06/2021 10:28:38
Glass	2184	cat.jpg	8	15/06/2021 10:28:49
Glass	2052	cat.jpg	8	15/06/2021 10:29:00
Glass	2110	cat.jpg	8	15/06/2021 10:29:10
Glass	2083	cat.jpg	8	15/06/2021 10:29:30
Glass	2111	cat.jpg	8	15/06/2021 10:29:43
Glass	2103	cat.jpg	8	15/06/2021 10:29:55
Glass	2240	cat.jpg	8	15/06/2021 10:30:05
Glass	2037	cat.jpg	8	15/06/2021 10:30:18
Glass	2119	cat.jpg	8	15/06/2021 10:30:34

Average: 2120

#### 12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	2376	cat.jpg	12	15/06/2021 10:30:55
Glass	2279	cat.jpg	12	15/06/2021 10:31:04
Glass	2199	cat.jpg	12	15/06/2021 10:31:17
Glass	2100	cat.jpg	12	15/06/2021 10:31:35
Glass	2291	cat.jpg	12	15/06/2021 10:31:48

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	2223	cat.jpg	12	15/06/2021 10:32:00
Glass	2141	cat.jpg	12	15/06/2021 10:32:11
Glass	2146	cat.jpg	12	15/06/2021 10:32:22
Glass	2249	cat.jpg	12	15/06/2021 10:32:32
Glass	2228	cat.jpg	12	15/06/2021 10:32:42

Average: 2223,2

## Threadpool

### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	130	cat.jpg	2	16/06/2021 12:42:47
Glass	112	cat.jpg	2	16/06/2021 12:42:55
Glass	110	cat.jpg	2	16/06/2021 12:43:04
Glass	221	cat.jpg	2	16/06/2021 12:43:13
Glass	130	cat.jpg	2	16/06/2021 12:43:21
Glass	111	cat.jpg	2	16/06/2021 12:43:33
Glass	124	cat.jpg	2	16/06/2021 12:43:41
Glass	256	cat.jpg	2	16/06/2021 12:43:49
Glass	221	cat.jpg	2	16/06/2021 12:44:01
Glass	135	cat.jpg	2	16/06/2021 12:44:10

Average: 155

### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	165	cat.jpg	4	16/06/2021 12:44:25
Glass	219	cat.jpg	4	16/06/2021 12:44:35
Glass	116	cat.jpg	4	16/06/2021 12:44:43
Glass	100	cat.jpg	4	16/06/2021 12:44:52
Glass	114	cat.jpg	4	16/06/2021 12:44:59
Glass	121	cat.jpg	4	16/06/2021 12:45:07
Glass	232	cat.jpg	4	16/06/2021 12:45:17
Glass	130	cat.jpg	4	16/06/2021 12:45:25
Glass	113	cat.jpg	4	16/06/2021 12:45:34
Glass	131	cat.jpg	4	16/06/2021 12:45:42

Average: 144,1

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	161	cat.jpg	8	16/06/2021 12:45:51
Glass	128	cat.jpg	8	16/06/2021 12:46:00
Glass	129	cat.jpg	8	16/06/2021 12:46:08
Glass	131	cat.jpg	8	16/06/2021 12:46:19
Glass	119	cat.jpg	8	16/06/2021 12:46:44
Glass	248	cat.jpg	8	16/06/2021 12:46:52
Glass	118	cat.jpg	8	16/06/2021 12:47:01
Glass	111	cat.jpg	8	16/06/2021 12:47:10
Glass	114	cat.jpg	8	16/06/2021 12:47:19
Glass	129	cat.jpg	8	16/06/2021 12:47:28

Average: 138,8

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	237	cat.jpg	12	16/06/2021 12:47:40
Glass	212	cat.jpg	12	16/06/2021 12:47:49
Glass	134	cat.jpg	12	16/06/2021 12:48:05
Glass	135	cat.jpg	12	16/06/2021 12:48:13
Glass	111	cat.jpg	12	16/06/2021 12:48:23
Glass	200	cat.jpg	12	16/06/2021 12:48:31
Glass	218	cat.jpg	12	16/06/2021 12:48:48
Glass	205	cat.jpg	12	16/06/2021 12:49:43
Glass	154	cat.jpg	12	16/06/2021 12:49:52
Glass	183	cat.jpg	12	16/06/2021 12:50:05

Average: 178,9

Image turtle.jpg - Average time of execution

Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	86	turtle.jpg	--	15/06/2021 09:09:58
Glass	77	turtle.jpg	--	15/06/2021 09:10:03
Glass	91	turtle.jpg	--	15/06/2021 09:10:07



Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	90	turtle.jpg	--	15/06/2021 09:10:12
Glass	95	turtle.jpg	--	15/06/2021 09:10:17
Glass	89	turtle.jpg	--	15/06/2021 09:10:21
Glass	88	turtle.jpg	--	15/06/2021 09:10:26
Glass	81	turtle.jpg	--	15/06/2021 09:10:30
Glass	93	turtle.jpg	--	15/06/2021 09:10:34
Glass	117	turtle.jpg	--	15/06/2021 09:10:39

Average: 90,7

## MultiThread

### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	113	turtle.jpg	2	15/06/2021 11:42:09
Glass	120	turtle.jpg	2	15/06/2021 11:42:15
Glass	101	turtle.jpg	2	15/06/2021 11:42:20
Glass	101	turtle.jpg	2	15/06/2021 11:42:25
Glass	104	turtle.jpg	2	15/06/2021 11:42:30
Glass	91	turtle.jpg	2	15/06/2021 11:42:34
Glass	116	turtle.jpg	2	15/06/2021 11:42:42
Glass	98	turtle.jpg	2	15/06/2021 11:42:50
Glass	121	turtle.jpg	2	15/06/2021 11:42:56
Glass	117	turtle.jpg	2	15/06/2021 11:43:01

Average: 108,2

### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	107	turtle.jpg	4	15/06/2021 11:43:06
Glass	114	turtle.jpg	4	15/06/2021 11:43:11
Glass	122	turtle.jpg	4	15/06/2021 11:43:15
Glass	122	turtle.jpg	4	15/06/2021 11:43:20
Glass	113	turtle.jpg	4	15/06/2021 11:43:26
Glass	116	turtle.jpg	4	15/06/2021 11:43:32
Glass	121	turtle.jpg	4	15/06/2021 11:43:38

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	119	turtle.jpg	4	15/06/2021 11:43:43
Glass	120	turtle.jpg	4	15/06/2021 11:43:49
Glass	148	turtle.jpg	4	15/06/2021 11:43:55

Average: 120,2

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	113	turtle.jpg	8	15/06/2021 11:44:02
Glass	106	turtle.jpg	8	15/06/2021 11:44:07
Glass	123	turtle.jpg	8	15/06/2021 11:44:13
Glass	127	turtle.jpg	8	15/06/2021 11:44:17
Glass	124	turtle.jpg	8	15/06/2021 11:44:22
Glass	121	turtle.jpg	8	15/06/2021 11:44:29
Glass	103	turtle.jpg	8	15/06/2021 11:44:34
Glass	124	turtle.jpg	8	15/06/2021 11:44:40
Glass	108	turtle.jpg	8	15/06/2021 11:44:45
Glass	124	turtle.jpg	8	15/06/2021 11:44:50

Average: 117,3

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	135	turtle.jpg	12	15/06/2021 11:44:56
Glass	125	turtle.jpg	12	15/06/2021 11:45:01
Glass	116	turtle.jpg	12	15/06/2021 11:45:06
Glass	120	turtle.jpg	12	15/06/2021 11:45:10
Glass	140	turtle.jpg	12	15/06/2021 11:45:16
Glass	116	turtle.jpg	12	15/06/2021 11:45:21
Glass	120	turtle.jpg	12	15/06/2021 11:45:26
Glass	131	turtle.jpg	12	15/06/2021 11:45:31
Glass	122	turtle.jpg	12	15/06/2021 11:45:35
Glass	116	turtle.jpg	12	15/06/2021 11:45:40

Average: 124,1

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	16	turtle.jpg	2	16/06/2021 01:32:45
Glass	22	turtle.jpg	2	16/06/2021 01:32:50
Glass	15	turtle.jpg	2	16/06/2021 01:32:55
Glass	16	turtle.jpg	2	16/06/2021 01:32:59
Glass	23	turtle.jpg	2	16/06/2021 01:33:04
Glass	26	turtle.jpg	2	16/06/2021 01:33:10
Glass	17	turtle.jpg	2	16/06/2021 01:33:16
Glass	33	turtle.jpg	2	16/06/2021 01:33:20
Glass	16	turtle.jpg	2	16/06/2021 01:33:26
Glass	16	turtle.jpg	2	16/06/2021 01:33:32

Average: 20

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	16	turtle.jpg	4	16/06/2021 01:33:36
Glass	17	turtle.jpg	4	16/06/2021 01:33:41
Glass	12	turtle.jpg	4	16/06/2021 01:33:45
Glass	16	turtle.jpg	4	16/06/2021 01:33:49
Glass	16	turtle.jpg	4	16/06/2021 01:33:54
Glass	22	turtle.jpg	4	16/06/2021 01:33:58
Glass	15	turtle.jpg	4	16/06/2021 01:34:02
Glass	16	turtle.jpg	4	16/06/2021 01:34:11
Glass	14	turtle.jpg	4	16/06/2021 01:34:16
Glass	18	turtle.jpg	4	16/06/2021 01:34:21

Average: 16,2

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	31	turtle.jpg	8	16/06/2021 01:34:32
Glass	14	turtle.jpg	8	16/06/2021 01:34:36
Glass	21	turtle.jpg	8	16/06/2021 01:34:41
Glass	31	turtle.jpg	8	16/06/2021 01:34:46
Glass	10	turtle.jpg	8	16/06/2021 01:34:52

Filter Used	Duration	File Used	Number of Threads	Date
Glass	16	turtle.jpg	8	16/06/2021 01:34:57
Glass	15	turtle.jpg	8	16/06/2021 01:35:02
Glass	25	turtle.jpg	8	16/06/2021 01:35:07
Glass	15	turtle.jpg	8	16/06/2021 01:35:11
Glass	26	turtle.jpg	8	16/06/2021 01:35:16

Average: 20,4

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	15	turtle.jpg	12	16/06/2021 01:35:21
Glass	19	turtle.jpg	12	16/06/2021 01:35:25
Glass	15	turtle.jpg	12	16/06/2021 01:35:30
Glass	19	turtle.jpg	12	16/06/2021 01:35:36
Glass	16	turtle.jpg	12	16/06/2021 01:35:42
Glass	15	turtle.jpg	12	16/06/2021 01:35:47
Glass	17	turtle.jpg	12	16/06/2021 01:35:52
Glass	20	turtle.jpg	12	16/06/2021 01:36:02
Glass	32	turtle.jpg	12	16/06/2021 01:36:08
Glass	20	turtle.jpg	12	16/06/2021 01:36:14

Average: 18,8

Image tinyCar.jpg - Average time of execution

Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	31	tinyCar.jpg	--	15/06/2021 09:10:55
Glass	29	tinyCar.jpg	--	15/06/2021 09:10:59
Glass	40	tinyCar.jpg	--	15/06/2021 09:11:04
Glass	35	tinyCar.jpg	--	15/06/2021 09:11:08
Glass	25	tinyCar.jpg	--	15/06/2021 09:11:13
Glass	36	tinyCar.jpg	--	15/06/2021 09:11:17
Glass	37	tinyCar.jpg	--	15/06/2021 09:11:21
Glass	28	tinyCar.jpg	--	15/06/2021 09:11:25
Glass	42	tinyCar.jpg	--	15/06/2021 09:11:29
Glass	35	tinyCar.jpg	--	15/06/2021 09:11:34

Average: 33,8

MultiThread

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	33	tinyCar.jpg	2	15/06/2021 11:52:18
Glass	30	tinyCar.jpg	2	15/06/2021 11:52:24
Glass	34	tinyCar.jpg	2	15/06/2021 11:52:29
Glass	40	tinyCar.jpg	2	15/06/2021 11:52:34
Glass	38	tinyCar.jpg	2	15/06/2021 11:52:39
Glass	31	tinyCar.jpg	2	15/06/2021 11:52:44
Glass	36	tinyCar.jpg	2	15/06/2021 11:52:50
Glass	35	tinyCar.jpg	2	15/06/2021 11:52:58
Glass	42	tinyCar.jpg	2	15/06/2021 11:53:03
Glass	36	tinyCar.jpg	2	15/06/2021 11:53:08

Average: 35,5

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	32	tinyCar.jpg	4	15/06/2021 11:53:24
Glass	42	tinyCar.jpg	4	15/06/2021 11:53:28
Glass	37	tinyCar.jpg	4	15/06/2021 11:53:34
Glass	32	tinyCar.jpg	4	15/06/2021 11:53:40
Glass	37	tinyCar.jpg	4	15/06/2021 11:53:46
Glass	35	tinyCar.jpg	4	15/06/2021 11:53:51
Glass	30	tinyCar.jpg	4	15/06/2021 11:53:56
Glass	28	tinyCar.jpg	4	15/06/2021 11:54:01
Glass	42	tinyCar.jpg	4	15/06/2021 11:54:06
Glass	26	tinyCar.jpg	4	15/06/2021 11:54:11

Average: 34,1

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	32	tinyCar.jpg	8	15/06/2021 11:54:17
Glass	35	tinyCar.jpg	8	15/06/2021 11:54:22

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	38	tinyCar.jpg	8	15/06/2021 11:54:27
Glass	44	tinyCar.jpg	8	15/06/2021 11:54:32
Glass	38	tinyCar.jpg	8	15/06/2021 11:54:44
Glass	34	tinyCar.jpg	8	15/06/2021 11:54:50
Glass	38	tinyCar.jpg	8	15/06/2021 11:54:55
Glass	49	tinyCar.jpg	8	15/06/2021 11:55:00
Glass	37	tinyCar.jpg	8	15/06/2021 11:55:05
Glass	47	tinyCar.jpg	8	15/06/2021 11:55:10

Average: 39,2

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	46	tinyCar.jpg	12	15/06/2021 11:55:16
Glass	51	tinyCar.jpg	12	15/06/2021 11:55:20
Glass	38	tinyCar.jpg	12	15/06/2021 11:55:26
Glass	35	tinyCar.jpg	12	15/06/2021 11:55:31
Glass	50	tinyCar.jpg	12	15/06/2021 11:55:36
Glass	61	tinyCar.jpg	12	15/06/2021 11:55:41
Glass	38	tinyCar.jpg	12	15/06/2021 11:55:45
Glass	55	tinyCar.jpg	12	15/06/2021 11:55:50
Glass	41	tinyCar.jpg	12	15/06/2021 11:55:55
Glass	36	tinyCar.jpg	12	15/06/2021 11:56:00

Average: 45,1

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	0	tinyCar.jpg	2	16/06/2021 01:50:14
Glass	16	tinyCar.jpg	2	16/06/2021 01:50:18
Glass	0	tinyCar.jpg	2	16/06/2021 01:50:23
Glass	0	tinyCar.jpg	2	16/06/2021 01:50:28
Glass	0	tinyCar.jpg	2	16/06/2021 01:50:32
Glass	0	tinyCar.jpg	2	16/06/2021 01:50:36

Filter Used	Duration	File Used	Number of Threads	Date
Glass	0	tinyCar.jpg	2	16/06/2021 01:50:41
Glass	0	tinyCar.jpg	2	16/06/2021 01:50:46
Glass	16	tinyCar.jpg	2	16/06/2021 01:50:50
Glass	0	tinyCar.jpg	2	16/06/2021 01:50:55

Average: 3,2

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	0	tinyCar.jpg	4	16/06/2021 01:50:59
Glass	0	tinyCar.jpg	4	16/06/2021 01:51:04
Glass	15	tinyCar.jpg	4	16/06/2021 01:51:09
Glass	0	tinyCar.jpg	4	16/06/2021 01:51:13
Glass	0	tinyCar.jpg	4	16/06/2021 01:51:17
Glass	0	tinyCar.jpg	4	16/06/2021 01:51:22
Glass	16	tinyCar.jpg	4	16/06/2021 01:51:27
Glass	0	tinyCar.jpg	4	16/06/2021 01:51:32
Glass	11	tinyCar.jpg	4	16/06/2021 01:51:37
Glass	0	tinyCar.jpg	4	16/06/2021 01:51:42

Average: 4,2

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	0	tinyCar.jpg	8	16/06/2021 01:51:48
Glass	15	tinyCar.jpg	8	16/06/2021 01:51:53
Glass	0	tinyCar.jpg	8	16/06/2021 01:51:57
Glass	0	tinyCar.jpg	8	16/06/2021 01:52:02
Glass	0	tinyCar.jpg	8	16/06/2021 01:52:06
Glass	0	tinyCar.jpg	8	16/06/2021 01:52:10
Glass	0	tinyCar.jpg	8	16/06/2021 01:52:14
Glass	0	tinyCar.jpg	8	16/06/2021 01:52:19
Glass	0	tinyCar.jpg	8	16/06/2021 01:52:24
Glass	15	tinyCar.jpg	8	16/06/2021 01:52:29

Average: 3

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	19	tinyCar.jpg	12	16/06/2021 01:52:37
Glass	0	tinyCar.jpg	12	16/06/2021 01:52:42
Glass	0	tinyCar.jpg	12	16/06/2021 01:52:48
Glass	0	tinyCar.jpg	12	16/06/2021 01:52:52
Glass	6	tinyCar.jpg	12	16/06/2021 01:52:57
Glass	16	tinyCar.jpg	12	16/06/2021 01:53:02
Glass	16	tinyCar.jpg	12	16/06/2021 01:53:07
Glass	0	tinyCar.jpg	12	16/06/2021 01:53:12
Glass	0	tinyCar.jpg	12	16/06/2021 01:53:16
Glass	0	tinyCar.jpg	12	16/06/2021 01:53:20

Average: 5,7

## Image ultraHd.jpg - Average time of execution

### Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	6298	ultraHd.jpg	--	15/06/2021 09:15:09
Glass	6208	ultraHd.jpg	--	15/06/2021 09:17:56
Glass	6006	ultraHd.jpg	--	15/06/2021 09:18:17
Glass	5981	ultraHd.jpg	--	15/06/2021 09:18:34
Glass	5784	ultraHd.jpg	--	15/06/2021 09:18:50
Glass	5984	ultraHd.jpg	--	15/06/2021 09:19:31
Glass	5792	ultraHd.jpg	--	15/06/2021 09:19:48
Glass	5929	ultraHd.jpg	--	15/06/2021 09:20:41
Glass	6068	ultraHd.jpg	--	15/06/2021 09:21:16
Glass	5717	ultraHd.jpg	--	15/06/2021 09:21:32

Average: 5976,7

### MultiThread

#### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	6900	ultraHd.jpg	2	15/06/2021 11:09:53
Glass	6983	ultraHd.jpg	2	15/06/2021 11:10:35
Glass	6543	ultraHd.jpg	2	15/06/2021 11:11:12



Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	6644	ultraHd.jpg	2	15/06/2021 11:11:56
Glass	6354	ultraHd.jpg	2	15/06/2021 11:12:14
Glass	6687	ultraHd.jpg	2	15/06/2021 11:12:33
Glass	6675	ultraHd.jpg	2	15/06/2021 11:13:45
Glass	6563	ultraHd.jpg	2	15/06/2021 11:14:05
Glass	6712	ultraHd.jpg	2	15/06/2021 11:14:25
Glass	6337	ultraHd.jpg	2	15/06/2021 11:14:48

Average: 6639,8

#### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	7443	ultraHd.jpg	4	15/06/2021 11:10:17
Glass	7476	ultraHd.jpg	4	15/06/2021 11:10:54
Glass	7551	ultraHd.jpg	4	15/06/2021 11:11:32
Glass	7460	ultraHd.jpg	4	15/06/2021 11:12:59
Glass	7573	ultraHd.jpg	4	15/06/2021 11:15:30
Glass	7718	ultraHd.jpg	4	15/06/2021 11:15:51
Glass	7432	ultraHd.jpg	4	15/06/2021 11:16:15
Glass	7552	ultraHd.jpg	4	15/06/2021 11:16:35
Glass	7569	ultraHd.jpg	4	15/06/2021 11:16:56
Glass	7539	ultraHd.jpg	4	15/06/2021 11:17:24

Average: 7531,3

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	8790	ultraHd.jpg	8	15/06/2021 11:18:00
Glass	8794	ultraHd.jpg	8	15/06/2021 11:18:21
Glass	8686	ultraHd.jpg	8	15/06/2021 11:18:43
Glass	8208	ultraHd.jpg	8	15/06/2021 11:19:37
Glass	8518	ultraHd.jpg	8	15/06/2021 11:20:12
Glass	8645	ultraHd.jpg	8	15/06/2021 11:20:34
Glass	9214	ultraHd.jpg	8	15/06/2021 11:21:04
Glass	8359	ultraHd.jpg	8	15/06/2021 11:21:25

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Glass	8587	ultraHd.jpg	8	15/06/2021 11:21:48
Glass	8883	ultraHd.jpg	8	15/06/2021 11:22:09

Average: 8668,4

## #### 12 threads

### Threadpool

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	634	ultraHd.jpg	2	16/06/2021 01:15:13
Glass	641	ultraHd.jpg	2	16/06/2021 01:15:31
Glass	457	ultraHd.jpg	2	16/06/2021 01:15:49
Glass	567	ultraHd.jpg	2	16/06/2021 01:16:07
Glass	558	ultraHd.jpg	2	16/06/2021 01:16:24
Glass	505	ultraHd.jpg	2	16/06/2021 01:16:42
Glass	470	ultraHd.jpg	2	16/06/2021 01:17:02
Glass	771	ultraHd.jpg	2	16/06/2021 01:17:20
Glass	709	ultraHd.jpg	2	16/06/2021 01:17:38
Glass	648	ultraHd.jpg	2	16/06/2021 01:17:55

Average: 596

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	506	ultraHd.jpg	4	16/06/2021 01:18:15
Glass	494	ultraHd.jpg	4	16/06/2021 01:18:33
Glass	606	ultraHd.jpg	4	16/06/2021 01:18:53
Glass	549	ultraHd.jpg	4	16/06/2021 01:19:13
Glass	617	ultraHd.jpg	4	16/06/2021 01:19:42
Glass	579	ultraHd.jpg	4	16/06/2021 01:20:00
Glass	579	ultraHd.jpg	4	16/06/2021 01:20:22
Glass	428	ultraHd.jpg	4	16/06/2021 01:20:41
Glass	558	ultraHd.jpg	4	16/06/2021 01:20:59
Glass	505	ultraHd.jpg	4	16/06/2021 01:21:20

Average: 542,1

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	557	ultraHd.jpg	8	16/06/2021 01:21:39
Glass	656	ultraHd.jpg	8	16/06/2021 01:21:59
Glass	747	ultraHd.jpg	8	16/06/2021 01:22:21
Glass	607	ultraHd.jpg	8	16/06/2021 01:22:44
Glass	757	ultraHd.jpg	8	16/06/2021 01:23:06
Glass	486	ultraHd.jpg	8	16/06/2021 01:23:28
Glass	496	ultraHd.jpg	8	16/06/2021 01:23:48
Glass	509	ultraHd.jpg	8	16/06/2021 01:24:09
Glass	638	ultraHd.jpg	8	16/06/2021 01:24:35
Glass	519	ultraHd.jpg	8	16/06/2021 01:24:57

Average: 597,2

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	543	ultraHd.jpg	12	16/06/2021 01:25:18
Glass	515	ultraHd.jpg	12	16/06/2021 01:25:38
Glass	581	ultraHd.jpg	12	16/06/2021 01:26:00
Glass	506	ultraHd.jpg	12	16/06/2021 01:26:21
Glass	620	ultraHd.jpg	12	16/06/2021 01:26:42
Glass	792	ultraHd.jpg	12	16/06/2021 01:27:02
Glass	558	ultraHd.jpg	12	16/06/2021 01:27:23
Glass	567	ultraHd.jpg	12	16/06/2021 01:27:44
Glass	548	ultraHd.jpg	12	16/06/2021 01:28:08
Glass	608	ultraHd.jpg	12	16/06/2021 01:28:30

Average: 583,8

# Glass

MacOS - Processor: 3,1 GHz Dual-Core Intel Core i7

## Image turtle.jpg

### Sequential

Implementation Used	Filter Used	Duration	File Used	Number of Threads	Date
Glass	136	turtle.jpg	--	16/06/2021 12:06:33	
Glass	132	turtle.jpg	--	16/06/2021 12:06:41	

Average: 134

### MultiThread

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	155	turtle.jpg	2	16/06/2021 12:07:18
Glass	149	turtle.jpg	2	16/06/2021 12:07:30

Average: 152

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	160	turtle.jpg	4	16/06/2021 12:07:40
Glass	150	turtle.jpg	4	16/06/2021 12:07:52

Average: 155

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	168	turtle.jpg	8	16/06/2021 12:08:01
Glass	168	turtle.jpg	8	16/06/2021 12:08:11

Average: 168

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	165	turtle.jpg	12	16/06/2021 12:08:21
Glass	165	turtle.jpg	12	16/06/2021 12:08:30

Average: 165

### Threadpool

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	13	turtle.jpg	2	16/06/2021 12:09:14
Glass	11	turtle.jpg	2	16/06/2021 12:09:24

Average: 12

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	12	turtle.jpg	4	16/06/2021 12:09:33
Glass	12	turtle.jpg	4	16/06/2021 12:09:41

Average: 12

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	40	turtle.jpg	8	16/06/2021 12:09:50
Glass	39	turtle.jpg	8	16/06/2021 12:09:58

Average: 39,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	62	turtle.jpg	12	16/06/2021 12:10:13
Glass	58	turtle.jpg	12	16/06/2021 12:10:22

Average: 60

# Image cat.jpg

## Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Glass	2400	cat.jpg	--	16/06/21021 12:18:03
Glass	2948	cat.jpg	--	16/06/2021 12:18:39

Average: 2674

## MultiThread

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	2464	cat.jpg	2	16/06/2021 12:19:29
Glass	2751	cat.jpg	2	16/06/2021 12:20:06

Average: 2607,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	2687	cat.jpg	4	16/06/2021 12:19:42
Glass	2543	cat.jpg	4	16/06/2021 12:20:19

Average: 2615

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	2673	cat.jpg	8	16/06/2021 12:20:32
Glass	2695	cat.jpg	8	16/06/2021 12:20:47

Average: 2684

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	2685	cat.jpg	12	16/06/2021 12:21:07
Glass	2774	cat.jpg	12	16/06/2021 12:21:19

Average: 2729,5

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	147	cat.jpg	2	16/06/2021 12:22:15
Glass	302	cat.jpg	2	16/06/2021 12:22:28

Average: 224,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	139	cat.jpg	4	16/06/2021 12:23:26
Glass	357	cat.jpg	4	16/06/2021 12:23:45

Average: 248

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	370	cat.jpg	8	16/06/2021 12:24:00
Glass	326	cat.jpg	8	16/06/2021 12:24:13

Average: 348

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
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Filter Used	Duration	File Used	Number of Threads	Date
Glass	509	cat.jpg	12	16/06/2021 12:24:32
Glass	495	cat.jpg	12	16/06/2021 12:24:45

Average: 502

## Image tinycar.jpg

### Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Glass	43	tinycar.jpg	--	16/06/2021 12:25:44
Glass	44	tinycar.jpg	--	16/06/2021 12:25:53

Average: 43,5

### MultiThread

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	52	tinycar.jpg	2	16/06/2021 12:26:42
Glass	48	tinycar.jpg	2	16/06/2021 12:26:52

Average: 50

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	52	tinycar.jpg	4	16/06/2021 12:26:59
Glass	49	tinycar.jpg	4	16/06/2021 12:27:10

Average: 50,5

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	53	tinycar.jpg	8	16/06/2021 12:27:26
Glass	57	tinycar.jpg	8	16/06/2021 12:27:35

Average: 55

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	54	tinycar.jpg	12	16/06/2021 12:27:49
Glass	53	tinycar.jpg	12	16/06/2021 12:27:57

Average: 53,5

### Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	4	tinycar.jpg	2	16/06/2021 12:28:54
Glass	3	tinycar.jpg	2	16/06/2021 12:29:02

Average: 3,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	12	tinycar.jpg	4	16/06/2021 12:29:11
Glass	5	tinycar.jpg	4	16/06/2021 12:29:18

Average: 8,5

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	12	tinycar.jpg	8	16/06/2021 12:29:29
Glass	11	tinycar.jpg	8	16/06/2021 12:29:37

Average: 11,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	12	tinycar.jpg	12	16/06/2021 12:29:49
Glass	12	tinycar.jpg	12	16/06/2021 12:29:57

Average: 12

# Image ultrahd.jpg

## Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Glass	9369	ultrahd.jpg	--	16/06/2021 12:31:06
Glass	9113	ultrahd.jpg	--	16/06/2021 12:31:31

Average: 9241

## MultiThread

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	8456	ultrahd.jpg	2	16/06/2021 12:32:12
Glass	9647	ultrahd.jpg	2	16/06/2021 12:32:47

Average: 9051,5

4 threads



Filter Used	Duration	File Used	Number of Threads	Date
Glass	8502	ultrahd.jpg	4	16/06/2021 12:33:14
Glass	8934	ultrahd.jpg	4	16/06/2021 12:33:46

Average: 8718

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	9139	ultrahd.jpg	8	16/06/2021 12:34:42

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	9254	ultrahd.jpg	12	16/06/2021 12:35:13

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	1423	ultrahd.jpg	2	16/06/2021 12:35:57
Glass	919	ultrahd.jpg	2	16/06/2021 12:36:20

Average: 1171

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	656	ultrahd.jpg	4	16/06/2021 12:36:43
Glass	1084	ultrahd.jpg	4	16/06/2021 12:37:06

Average: 870

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	1222	ultrahd.jpg	8	16/06/2021 12:37:31
Glass	1074	ultrahd.jpg	8	16/06/2021 12:37:59

Average: 1148

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Glass	1417	ultrahd.jpg	12	16/06/2021 12:38:25
Glass	1112	ultrahd.jpg	12	16/06/2021 12:39:07

Average: 1264,5

# Blur

Windows Processor: Intel(R) Core(TM) i7-8665U CPU @ 1.90GHz 2.11 GHz

## Image cat.jpg

### Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	1788	cat.jpg	--	15/06/2021 09:22:54
Blur	1834	cat.jpg	--	15/06/2021 09:23:03
Blur	1771	cat.jpg	--	15/06/2021 09:23:10
Blur	1703	cat.jpg	--	15/06/2021 09:23:18
Blur	1783	cat.jpg	--	15/06/2021 09:23:26
Blur	1754	cat.jpg	--	15/06/2021 09:23:34
Blur	1724	cat.jpg	--	15/06/2021 09:23:41
Blur	1790	cat.jpg	--	15/06/2021 09:23:49
Blur	1801	cat.jpg	--	15/06/2021 09:23:56
Blur	1857	cat.jpg	--	15/06/2021 09:24:04

Average: 1780,5

### MultiThread

#### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	1330	cat.jpg	2	15/06/2021 10:12:42
Blur	1390	cat.jpg	2	15/06/2021 10:12:50
Blur	1550	cat.jpg	2	15/06/2021 10:14:24
Blur	1527	cat.jpg	2	15/06/2021 10:15:28
Blur	1589	cat.jpg	2	15/06/2021 10:15:38
Blur	1495	cat.jpg	2	15/06/2021 10:15:46
Blur	1571	cat.jpg	2	15/06/2021 10:16:00
Blur	1519	cat.jpg	2	15/06/2021 10:16:09
Blur	1379	cat.jpg	2	15/06/2021 10:16:16
Blur	1518	cat.jpg	2	15/06/2021 10:16:24

Average: 1486,8

#### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	1419	cat.jpg	4	15/06/2021 10:22:34
Blur	1433	cat.jpg	4	15/06/2021 10:22:44
Blur	1404	cat.jpg	4	15/06/2021 10:22:56
Blur	1231	cat.jpg	4	15/06/2021 10:23:04
Blur	1559	cat.jpg	4	15/06/2021 10:23:12
Blur	1229	cat.jpg	4	15/06/2021 10:23:20
Blur	1270	cat.jpg	4	15/06/2021 10:23:27
Blur	1371	cat.jpg	4	15/06/2021 10:23:34
Blur	1269	cat.jpg	4	15/06/2021 10:23:42
Blur	1399	cat.jpg	4	15/06/2021 10:23:49

Average: 1358,4

## 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	1376	cat.jpg	8	15/06/2021 10:33:21
Blur	1609	cat.jpg	8	15/06/2021 10:33:31
Blur	1395	cat.jpg	8	15/06/2021 10:33:48
Blur	1436	cat.jpg	8	15/06/2021 10:34:01
Blur	1440	cat.jpg	8	15/06/2021 10:34:18
Blur	1437	cat.jpg	8	15/06/2021 10:34:27
Blur	1457	cat.jpg	8	15/06/2021 10:34:35
Blur	1379	cat.jpg	8	15/06/2021 10:34:43
Blur	1416	cat.jpg	8	15/06/2021 10:34:51
Blur	1412	cat.jpg	8	15/06/2021 10:34:59

Average: 1435,7

## 12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	1363	cat.jpg	12	15/06/2021 10:35:09
Blur	1441	cat.jpg	12	15/06/2021 10:35:20
Blur	1517	cat.jpg	12	15/06/2021 10:35:32
Blur	1390	cat.jpg	12	15/06/2021 10:35:43
Blur	1465	cat.jpg	12	15/06/2021 10:35:56

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	1471	cat.jpg	12	15/06/2021 10:36:06
Blur	1470	cat.jpg	12	15/06/2021 10:36:15
Blur	1418	cat.jpg	12	15/06/2021 10:36:23
Blur	1499	cat.jpg	12	15/06/2021 10:36:32
Blur	1415	cat.jpg	12	15/06/2021 10:37:07

Average: 1444,9

## Threadpool

### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	227	cat.jpg	2	16/06/2021 01:54:20
Blur	116	cat.jpg	2	16/06/2021 01:54:27
Blur	116	cat.jpg	2	16/06/2021 01:54:35
Blur	100	cat.jpg	2	16/06/2021 01:54:42
Blur	223	cat.jpg	2	16/06/2021 01:54:52
Blur	123	cat.jpg	2	16/06/2021 01:54:59
Blur	113	cat.jpg	2	16/06/2021 01:55:06
Blur	116	cat.jpg	2	16/06/2021 01:55:13
Blur	100	cat.jpg	2	16/06/2021 01:55:21
Blur	114	cat.jpg	2	16/06/2021 01:55:29

Average: 134,8

### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	97	cat.jpg	4	16/06/2021 01:55:48
Blur	116	cat.jpg	4	16/06/2021 01:55:58
Blur	131	cat.jpg	4	16/06/2021 01:56:05
Blur	110	cat.jpg	4	16/06/2021 01:56:13
Blur	231	cat.jpg	4	16/06/2021 01:56:28
Blur	147	cat.jpg	4	16/06/2021 01:56:35
Blur	120	cat.jpg	4	16/06/2021 01:56:45
Blur	112	cat.jpg	4	16/06/2021 01:56:52
Blur	116	cat.jpg	4	16/06/2021 01:56:59

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	144	cat.jpg	4	16/06/2021 01:57:09

Average: 132,4

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	204	cat.jpg	8	16/06/2021 01:57:21
Blur	108	cat.jpg	8	16/06/2021 01:57:28
Blur	116	cat.jpg	8	16/06/2021 01:57:37
Blur	116	cat.jpg	8	16/06/2021 01:57:45
Blur	111	cat.jpg	8	16/06/2021 01:57:53
Blur	112	cat.jpg	8	16/06/2021 01:58:01
Blur	123	cat.jpg	8	16/06/2021 01:58:09
Blur	127	cat.jpg	8	16/06/2021 01:58:17
Blur	133	cat.jpg	8	16/06/2021 01:58:26
Blur	107	cat.jpg	8	16/06/2021 01:58:34

Average: 125,7

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	225	cat.jpg	12	16/06/2021 01:58:53
Blur	103	cat.jpg	12	16/06/2021 01:59:01
Blur	191	cat.jpg	12	16/06/2021 01:59:10
Blur	129	cat.jpg	12	16/06/2021 01:59:23
Blur	135	cat.jpg	12	16/06/2021 01:59:32
Blur	192	cat.jpg	12	16/06/2021 01:59:40
Blur	119	cat.jpg	12	16/06/2021 01:59:54
Blur	123	cat.jpg	12	16/06/2021 02:00:02
Blur	120	cat.jpg	12	16/06/2021 02:00:10
Blur	223	cat.jpg	12	16/06/2021 02:00:21

Average: 156

Image turtle.jpg

Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	103	turtle.jpg	--	15/06/2021 09:24:10
Blur	113	turtle.jpg	--	15/06/2021 09:24:15
Blur	98	turtle.jpg	--	15/06/2021 09:24:19
Blur	94	turtle.jpg	--	15/06/2021 09:24:23
Blur	109	turtle.jpg	--	15/06/2021 09:24:28
Blur	121	turtle.jpg	--	15/06/2021 09:24:32
Blur	90	turtle.jpg	--	15/06/2021 09:24:37
Blur	97	turtle.jpg	--	15/06/2021 09:24:41
Blur	87	turtle.jpg	--	15/06/2021 09:24:46
Blur	106	turtle.jpg	--	15/06/2021 09:24:51

Average: 101,8

## MultiThread

### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	102	turtle.jpg	2	15/06/2021 11:46:38
Blur	94	turtle.jpg	2	15/06/2021 11:46:44
Blur	100	turtle.jpg	2	15/06/2021 11:46:48
Blur	100	turtle.jpg	2	15/06/2021 11:46:53
Blur	103	turtle.jpg	2	15/06/2021 11:46:57
Blur	108	turtle.jpg	2	15/06/2021 11:47:02
Blur	84	turtle.jpg	2	15/06/2021 11:47:07
Blur	103	turtle.jpg	2	15/06/2021 11:47:11
Blur	99	turtle.jpg	2	15/06/2021 11:47:18
Blur	101	turtle.jpg	2	15/06/2021 11:47:24

Average: 99,4

### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	111	turtle.jpg	4	15/06/2021 11:47:30
Blur	100	turtle.jpg	4	15/06/2021 11:47:35
Blur	116	turtle.jpg	4	15/06/2021 11:47:40

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	100	turtle.jpg	4	15/06/2021 11:47:45
Blur	101	turtle.jpg	4	15/06/2021 11:47:50
Blur	99	turtle.jpg	4	15/06/2021 11:47:56
Blur	99	turtle.jpg	4	15/06/2021 11:48:01
Blur	93	turtle.jpg	4	15/06/2021 11:48:06
Blur	98	turtle.jpg	4	15/06/2021 11:48:12
Blur	100	turtle.jpg	4	15/06/2021 11:48:18

Average: 101,7

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	139	turtle.jpg	8	15/06/2021 11:48:25
Blur	110	turtle.jpg	8	15/06/2021 11:48:30
Blur	116	turtle.jpg	8	15/06/2021 11:48:35
Blur	143	turtle.jpg	8	15/06/2021 11:48:40
Blur	119	turtle.jpg	8	15/06/2021 11:48:45
Blur	119	turtle.jpg	8	15/06/2021 11:48:51
Blur	135	turtle.jpg	8	15/06/2021 11:48:56
Blur	126	turtle.jpg	8	15/06/2021 11:49:01
Blur	121	turtle.jpg	8	15/06/2021 11:49:06
Blur	116	turtle.jpg	8	15/06/2021 11:49:10

Average: 124,4

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	159	turtle.jpg	12	15/06/2021 11:49:15
Blur	137	turtle.jpg	12	15/06/2021 11:49:20
Blur	153	turtle.jpg	12	15/06/2021 11:49:25
Blur	164	turtle.jpg	12	15/06/2021 11:49:31
Blur	137	turtle.jpg	12	15/06/2021 11:49:35
Blur	183	turtle.jpg	12	15/06/2021 11:49:40
Blur	132	turtle.jpg	12	15/06/2021 11:49:45
Blur	153	turtle.jpg	12	15/06/2021 11:49:50

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	122	turtle.jpg	12	15/06/2021 11:49:55
Blur	163	turtle.jpg	12	15/06/2021 11:50:00

Average: 150,3

## Threadpool

### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	26	turtle.jpg	2	16/06/2021 02:01:02
Blur	20	turtle.jpg	2	16/06/2021 02:01:06
Blur	23	turtle.jpg	2	16/06/2021 02:01:12
Blur	20	turtle.jpg	2	16/06/2021 02:01:22
Blur	29	turtle.jpg	2	16/06/2021 02:01:30
Blur	31	turtle.jpg	2	16/06/2021 02:01:35
Blur	15	turtle.jpg	2	16/06/2021 02:01:39
Blur	16	turtle.jpg	2	16/06/2021 02:01:44
Blur	16	turtle.jpg	2	16/06/2021 02:01:49
Blur	20	turtle.jpg	2	16/06/2021 02:01:54

Average: 21,6

### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	18	turtle.jpg	4	16/06/2021 02:02:05
Blur	19	turtle.jpg	4	16/06/2021 02:02:09
Blur	31	turtle.jpg	4	16/06/2021 02:02:13
Blur	32	turtle.jpg	4	16/06/2021 02:02:18
Blur	15	turtle.jpg	4	16/06/2021 02:02:26
Blur	30	turtle.jpg	4	16/06/2021 02:02:34
Blur	26	turtle.jpg	4	16/06/2021 02:02:39
Blur	27	turtle.jpg	4	16/06/2021 02:02:45
Blur	25	turtle.jpg	4	16/06/2021 02:02:49
Blur	28	turtle.jpg	4	16/06/2021 02:02:55

Average: 25,1

### 8 threads



Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	20	turtle.jpg	8	16/06/2021 02:04:23
Blur	15	turtle.jpg	8	16/06/2021 02:04:28
Blur	33	turtle.jpg	8	16/06/2021 02:04:33
Blur	15	turtle.jpg	8	16/06/2021 02:04:37
Blur	16	turtle.jpg	8	16/06/2021 02:04:42
Blur	16	turtle.jpg	8	16/06/2021 02:04:55
Blur	24	turtle.jpg	8	16/06/2021 02:05:00
Blur	21	turtle.jpg	8	16/06/2021 02:05:05
Blur	31	turtle.jpg	8	16/06/2021 02:05:09
Blur	22	turtle.jpg	8	16/06/2021 02:05:15

Average: 21,3

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	18	turtle.jpg	12	16/06/2021 02:05:24
Blur	15	turtle.jpg	12	16/06/2021 02:05:29
Blur	16	turtle.jpg	12	16/06/2021 02:05:34
Blur	18	turtle.jpg	12	16/06/2021 02:05:38
Blur	25	turtle.jpg	12	16/06/2021 02:05:43
Blur	19	turtle.jpg	12	16/06/2021 02:05:51
Blur	28	turtle.jpg	12	16/06/2021 02:05:55
Blur	32	turtle.jpg	12	16/06/2021 02:05:59
Blur	31	turtle.jpg	12	16/06/2021 02:06:04
Blur	19	turtle.jpg	12	16/06/2021 02:06:08

Average: 22,1

Image tinyCar.jpg

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Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	33	tinyCar.jpg	--	15/06/2021 09:25:22
Blur	34	tinyCar.jpg	--	15/06/2021 09:25:28
Blur	40	tinyCar.jpg	--	15/06/2021 09:25:33

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	43	tinyCar.jpg	--	15/06/2021 09:25:37
Blur	40	tinyCar.jpg	--	15/06/2021 09:25:42
Blur	36	tinyCar.jpg	--	15/06/2021 09:25:47
Blur	30	tinyCar.jpg	--	15/06/2021 09:25:51
Blur	41	tinyCar.jpg	--	15/06/2021 09:25:55
Blur	38	tinyCar.jpg	--	15/06/2021 09:26:00
Blur	34	tinyCar.jpg	--	15/06/2021 09:26:06

Average: 36,9

## MultiThread

### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	53	tinyCar.jpg	2	15/06/2021 11:56:50
Blur	31	tinyCar.jpg	2	15/06/2021 11:56:55
Blur	55	tinyCar.jpg	2	15/06/2021 11:57:00
Blur	49	tinyCar.jpg	2	15/06/2021 11:57:05
Blur	42	tinyCar.jpg	2	15/06/2021 11:57:11
Blur	48	tinyCar.jpg	2	15/06/2021 11:57:16
Blur	50	tinyCar.jpg	2	15/06/2021 11:57:20
Blur	42	tinyCar.jpg	2	15/06/2021 11:57:25
Blur	40	tinyCar.jpg	2	15/06/2021 11:57:30
Blur	45	tinyCar.jpg	2	15/06/2021 11:57:36

Average: 45,5

### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	54	tinyCar.jpg	4	15/06/2021 11:57:41
Blur	51	tinyCar.jpg	4	15/06/2021 11:57:56
Blur	65	tinyCar.jpg	4	15/06/2021 11:58:00
Blur	54	tinyCar.jpg	4	15/06/2021 11:58:05
Blur	58	tinyCar.jpg	4	15/06/2021 11:58:09
Blur	51	tinyCar.jpg	4	15/06/2021 11:58:14
Blur	72	tinyCar.jpg	4	15/06/2021 11:58:20

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	43	tinyCar.jpg	4	15/06/2021 11:58:30
Blur	58	tinyCar.jpg	4	15/06/2021 11:58:35
Blur	53	tinyCar.jpg	4	15/06/2021 11:58:43

Average: 55,9

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	50	tinyCar.jpg	8	15/06/2021 11:58:54
Blur	71	tinyCar.jpg	8	15/06/2021 11:58:58
Blur	63	tinyCar.jpg	8	15/06/2021 11:59:04
Blur	62	tinyCar.jpg	8	15/06/2021 11:59:09
Blur	60	tinyCar.jpg	8	15/06/2021 11:59:13
Blur	57	tinyCar.jpg	8	15/06/2021 11:59:18
Blur	58	tinyCar.jpg	8	15/06/2021 11:59:23
Blur	53	tinyCar.jpg	8	15/06/2021 11:59:33
Blur	55	tinyCar.jpg	8	15/06/2021 11:59:37
Blur	83	tinyCar.jpg	8	15/06/2021 11:59:43

Average: 61,2

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	60	tinyCar.jpg	12	15/06/2021 11:59:50
Blur	75	tinyCar.jpg	12	15/06/2021 11:59:55
Blur	74	tinyCar.jpg	12	15/06/2021 11:59:59
Blur	66	tinyCar.jpg	12	16/06/2021 12:00:03
Blur	70	tinyCar.jpg	12	16/06/2021 12:00:08
Blur	63	tinyCar.jpg	12	16/06/2021 12:00:12
Blur	65	tinyCar.jpg	12	16/06/2021 12:00:17
Blur	67	tinyCar.jpg	12	16/06/2021 12:00:21
Blur	65	tinyCar.jpg	12	16/06/2021 12:00:26
Blur	67	tinyCar.jpg	12	16/06/2021 12:00:37

Average: 67,2

Threadpool

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	0	tinyCar.jpg	2	16/06/2021 02:06:55
Blur	0	tinyCar.jpg	2	16/06/2021 02:06:59
Blur	15	tinyCar.jpg	2	16/06/2021 02:07:04
Blur	16	tinyCar.jpg	2	16/06/2021 02:07:11
Blur	16	tinyCar.jpg	2	16/06/2021 02:07:17
Blur	15	tinyCar.jpg	2	16/06/2021 02:07:22
Blur	0	tinyCar.jpg	2	16/06/2021 02:07:26
Blur	0	tinyCar.jpg	2	16/06/2021 02:07:31
Blur	0	tinyCar.jpg	2	16/06/2021 02:07:36
Blur	0	tinyCar.jpg	2	16/06/2021 02:07:44

Average: 6,2

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	0	tinyCar.jpg	4	16/06/2021 02:08:14
Blur	16	tinyCar.jpg	4	16/06/2021 02:08:19
Blur	0	tinyCar.jpg	4	16/06/2021 02:08:24
Blur	0	tinyCar.jpg	4	16/06/2021 02:08:29
Blur	0	tinyCar.jpg	4	16/06/2021 02:08:34
Blur	16	tinyCar.jpg	4	16/06/2021 02:08:40
Blur	0	tinyCar.jpg	4	16/06/2021 02:08:44
Blur	2	tinyCar.jpg	4	16/06/2021 02:08:49
Blur	0	tinyCar.jpg	4	16/06/2021 02:08:55
Blur	0	tinyCar.jpg	4	16/06/2021 02:08:59

Average: 3,4

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	0	tinyCar.jpg	8	16/06/2021 02:09:06
Blur	0	tinyCar.jpg	8	16/06/2021 02:09:11
Blur	0	tinyCar.jpg	8	16/06/2021 02:09:18
Blur	0	tinyCar.jpg	8	16/06/2021 02:09:28

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	3	tinyCar.jpg	8	16/06/2021 02:09:35
Blur	7	tinyCar.jpg	8	16/06/2021 02:09:40
Blur	0	tinyCar.jpg	8	16/06/2021 02:09:47
Blur	0	tinyCar.jpg	8	16/06/2021 02:09:54
Blur	0	tinyCar.jpg	8	16/06/2021 02:09:59
Blur	0	tinyCar.jpg	8	16/06/2021 02:10:04

Average: 1

### 12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	6	tinyCar.jpg	12	16/06/2021 02:10:10
Blur	0	tinyCar.jpg	12	16/06/2021 02:10:14
Blur	0	tinyCar.jpg	12	16/06/2021 02:10:20
Blur	0	tinyCar.jpg	12	16/06/2021 02:10:24
Blur	0	tinyCar.jpg	12	16/06/2021 02:10:28
Blur	0	tinyCar.jpg	12	16/06/2021 02:10:35
Blur	16	tinyCar.jpg	12	16/06/2021 02:10:40
Blur	0	tinyCar.jpg	12	16/06/2021 02:10:45
Blur	7	tinyCar.jpg	12	16/06/2021 02:10:50
Blur	15	tinyCar.jpg	12	16/06/2021 02:10:56

Average: 4,4

## Image ultraHd.jpg

### Sequential

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	5953	ultraHd.jpg	--	15/06/2021 09:27:09
Blur	6348	ultraHd.jpg	--	15/06/2021 09:27:27
Blur	5955	ultraHd.jpg	--	15/06/2021 09:27:44
Blur	6767	ultraHd.jpg	--	15/06/2021 09:28:02
Blur	8284	ultraHd.jpg	--	15/06/2021 09:28:21
Blur	6474	ultraHd.jpg	--	15/06/2021 09:28:51
Blur	6219	ultraHd.jpg	--	15/06/2021 09:29:11

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	6090	ultraHd.jpg	--	15/06/2021 09:29:29
Blur	7859	ultraHd.jpg	--	15/06/2021 09:29:49
Blur	7985	ultraHd.jpg	--	15/06/2021 09:30:18

Average: 6793,4

## MultiThread

### 2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	5703	ultraHd.jpg	2	15/06/2021 11:23:38
Blur	5911	ultraHd.jpg	2	15/06/2021 11:23:56
Blur	5939	ultraHd.jpg	2	15/06/2021 11:24:15
Blur	5480	ultraHd.jpg	2	15/06/2021 11:24:33
Blur	4628	ultraHd.jpg	2	15/06/2021 11:24:50
Blur	5329	ultraHd.jpg	2	15/06/2021 11:25:05
Blur	5473	ultraHd.jpg	2	15/06/2021 11:25:23
Blur	5415	ultraHd.jpg	2	15/06/2021 11:25:49
Blur	5446	ultraHd.jpg	2	15/06/2021 11:26:08
Blur	4861	ultraHd.jpg	2	15/06/2021 11:30:00

Average: 5418,5

### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	5284	ultraHd.jpg	4	15/06/2021 11:30:31
Blur	4450	ultraHd.jpg	4	15/06/2021 11:30:49
Blur	5008	ultraHd.jpg	4	15/06/2021 11:31:16
Blur	4816	ultraHd.jpg	4	15/06/2021 11:31:47
Blur	4470	ultraHd.jpg	4	15/06/2021 11:32:07
Blur	4853	ultraHd.jpg	4	15/06/2021 11:32:31
Blur	4794	ultraHd.jpg	4	15/06/2021 11:32:53
Blur	5002	ultraHd.jpg	4	15/06/2021 11:33:13
Blur	5102	ultraHd.jpg	4	15/06/2021 11:33:34
Blur	5089	ultraHd.jpg	4	15/06/2021 11:33:51

Average: 4886,8

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	4943	ultraHd.jpg	8	15/06/2021 11:34:08
Blur	4938	ultraHd.jpg	8	15/06/2021 11:34:36
Blur	5002	ultraHd.jpg	8	15/06/2021 11:34:54
Blur	4400	ultraHd.jpg	8	15/06/2021 11:35:11
Blur	4817	ultraHd.jpg	8	15/06/2021 11:35:27
Blur	4492	ultraHd.jpg	8	15/06/2021 11:35:47
Blur	4677	ultraHd.jpg	8	15/06/2021 11:36:04
Blur	5102	ultraHd.jpg	8	15/06/2021 11:36:21
Blur	4943	ultraHd.jpg	8	15/06/2021 11:36:39
Blur	4375	ultraHd.jpg	8	15/06/2021 11:36:56

Average: 4768,9

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	4955	ultraHd.jpg	12	15/06/2021 11:37:31
Blur	5143	ultraHd.jpg	12	15/06/2021 11:37:49
Blur	5087	ultraHd.jpg	12	15/06/2021 11:38:05
Blur	5294	ultraHd.jpg	12	15/06/2021 11:38:23
Blur	5206	ultraHd.jpg	12	15/06/2021 11:38:41
Blur	5035	ultraHd.jpg	12	15/06/2021 11:39:00
Blur	4856	ultraHd.jpg	12	15/06/2021 11:39:34
Blur	5062	ultraHd.jpg	12	15/06/2021 11:39:54
Blur	5040	ultraHd.jpg	12	15/06/2021 11:40:11
Blur	4949	ultraHd.jpg	12	15/06/2021 11:40:28

Average: 5062,7

Threadpool

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	428	ultraHd.jpg	2	16/06/2021 01:29:25
Blur	722	ultraHd.jpg	2	16/06/2021 01:29:42
Blur	601	ultraHd.jpg	2	16/06/2021 01:30:04

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	473	ultraHd.jpg	2	16/06/2021 01:30:23
Blur	684	ultraHd.jpg	2	16/06/2021 01:30:53
Blur	416	ultraHd.jpg	2	16/06/2021 01:31:13
Blur	465	ultraHd.jpg	2	16/06/2021 01:31:29
Blur	487	ultraHd.jpg	2	16/06/2021 01:31:45
Blur	708	ultraHd.jpg	2	16/06/2021 01:32:04
Blur	486	ultraHd.jpg	2	16/06/2021 01:32:20

Average: 547

#### 4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	414	ultraHd.jpg	4	16/06/2021 01:37:04
Blur	555	ultraHd.jpg	4	16/06/2021 01:37:22
Blur	768	ultraHd.jpg	4	16/06/2021 01:37:40
Blur	534	ultraHd.jpg	4	16/06/2021 01:37:56
Blur	567	ultraHd.jpg	4	16/06/2021 01:38:14
Blur	476	ultraHd.jpg	4	16/06/2021 01:38:29
Blur	770	ultraHd.jpg	4	16/06/2021 01:38:46
Blur	696	ultraHd.jpg	4	16/06/2021 01:39:03
Blur	669	ultraHd.jpg	4	16/06/2021 01:39:19
Blur	675	ultraHd.jpg	4	16/06/2021 01:39:36

Average: 612,4

#### 8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	661	ultraHd.jpg	8	16/06/2021 01:40:04
Blur	688	ultraHd.jpg	8	16/06/2021 01:40:24
Blur	425	ultraHd.jpg	8	16/06/2021 01:40:49
Blur	779	ultraHd.jpg	8	16/06/2021 01:41:08
Blur	655	ultraHd.jpg	8	16/06/2021 01:42:12
Blur	506	ultraHd.jpg	8	16/06/2021 01:43:39
Blur	447	ultraHd.jpg	8	16/06/2021 01:44:00
Blur	584	ultraHd.jpg	8	16/06/2021 01:44:18



Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	612	ultraHd.jpg	8	16/06/2021 01:44:41
Blur	658	ultraHd.jpg	8	16/06/2021 01:45:35

Average: 601,5

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Blur	664	ultraHd.jpg	12	16/06/2021 01:45:58
Blur	517	ultraHd.jpg	12	16/06/2021 01:46:15
Blur	542	ultraHd.jpg	12	16/06/2021 01:46:43
Blur	493	ultraHd.jpg	12	16/06/2021 01:47:23
Blur	739	ultraHd.jpg	12	16/06/2021 01:47:55
Blur	463	ultraHd.jpg	12	16/06/2021 01:48:12
Blur	457	ultraHd.jpg	12	16/06/2021 01:48:30
Blur	756	ultraHd.jpg	12	16/06/2021 01:48:47
Blur	504	ultraHd.jpg	12	16/06/2021 01:49:06
Blur	528	ultraHd.jpg	12	16/06/2021 01:49:41

Average: 566,3

# Blur

MacOS - Processor: 3,1 GHz Dual-Core Intel Core i7

## Image turtle.jpg

### Sequential

Implementation Used	Filter Used	Duration	File Used	Number of Threads	Date
Blur	137	turtle.jpg	--	16/06/2021 12:42:02	
Blur	137	turtle.jpg	--	16/06/2021 12:42:11	

Average: 137

### MultiThread

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	172	turtle.jpg	2	16/06/2021 12:42:53
Blur	149	turtle.jpg	2	16/06/2021 12:43:02

Average: 160,5

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	164	turtle.jpg	4	16/06/2021 12:43:12
Blur	200	turtle.jpg	4	16/06/2021 12:43:27

Average: 182

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	253	turtle.jpg	8	16/06/2021 12:43:46
Blur	223	turtle.jpg	8	16/06/2021 12:43:55

Average: 238

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	289	turtle.jpg	12	16/06/2021 12:44:10
Blur	255	turtle.jpg	12	16/06/2021 12:44:18

Average: 272

### Threadpool

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	14	turtle.jpg	2	16/06/2021 12:45:11
Blur	12	turtle.jpg	2	16/06/2021 12:45:19

Average: 13

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	22	turtle.jpg	4	16/06/2021 12:45:32
Blur	13	turtle.jpg	4	16/06/2021 12:45:41

Average: 17,5

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	54	turtle.jpg	8	16/06/2021 12:46:01
Blur	53	turtle.jpg	8	16/06/2021 12:46:12

Average: 53,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	77	turtle.jpg	12	16/06/2021 12:46:22
Blur	93	turtle.jpg	12	16/06/2021 12:46:33

Average: 85

# Image cat.jpg

## Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Blur	2475	cat.jpg	--	16/06/2021 12:47:32
Blur	2484	cat.jpg	--	16/06/2021 12:47:45

Average: 2479,5

## MultiThread

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	1829	cat.jpg	2	16/06/2021 01:03:15
Blur	1945	cat.jpg	2	16/06/2021 01:03:46

Average: 1887

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	1948	cat.jpg	4	16/06/2021 01:04:03
Blur	1962	cat.jpg	4	16/06/2021 01:04:16

Average: 1955

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	1970	cat.jpg	8	16/06/2021 01:04:36
Blur	2240	cat.jpg	8	16/06/2021 01:04:50

Average: 2105

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	2029	cat.jpg	12	16/06/2021 01:05:39
Blur	1999	cat.jpg	12	16/06/2021 01:05:52

Average: 2014

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	140	cat.jpg	2	16/06/2021 01:06:54
Blur	309	cat.jpg	2	16/06/2021 01:07:10

Average: 224,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	319	cat.jpg	4	16/06/2021 01:07:36
Blur	327	cat.jpg	4	16/06/2021 01:08:06

Average: 323

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	182	cat.jpg	8	16/06/2021 01:08:23
Blur	347	cat.jpg	8	16/06/2021 01:08:38

Average: 264,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
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Filter Used	Duration	File Used	Number of Threads	Date
Blur	528	cat.jpg	12	16/06/2021 01:08:51
Blur	571	cat.jpg	12	16/06/2021 01:09:04

Average: 549,5

## Image tinycar.jpg

### Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Blur	53	tinycar.jpg	--	16/06/2021 12:54:51
Blur	55	tinycar.jpg	--	16/06/2021 12:54:59

Average: 54

### MultiThread

#### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	60	tinyCar.jpg	2	16/06/2021 01:09:59
Blur	54	tinyCar.jpg	2	16/06/2021 01:10:12

Average: 57

#### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	71	tinyCar.jpg	4	16/06/2021 01:10:20
Blur	68	tinyCar.jpg	4	16/06/2021 01:10:28

Average: 69,5

#### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	58	tinyCar.jpg	8	16/06/2021 01:10:38
Blur	67	tinyCar.jpg	8	16/06/2021 01:10:49

Average: 62,5

#### 12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	67	tinyCar.jpg	12	16/06/2021 01:11:05
Blur	66	tinyCar.jpg	12	16/06/2021 01:11:13

Average: 66,5

### Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	4	tinyCar.jpg	2	16/06/2021 01:12:00
Blur	5	tinyCar.jpg	2	16/06/2021 01:12:08

Average: 4,5

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	9	tinyCar.jpg	4	16/06/2021 01:12:18
Blur	9	tinyCar.jpg	4	16/06/2021 01:12:35

Average: 9

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	18	tinyCar.jpg	8	16/06/2021 01:12:44
Blur	23	tinyCar.jpg	8	16/06/2021 01:12:54

Average: 20,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	26	tinyCar.jpg	12	16/06/2021 01:13:23
Blur	25	tinyCar.jpg	12	16/06/2021 01:13:30

Average: 25,5

# Image ultrahd.jpg

## Sequential

Filter Used	Duration	File Used	Number of Threads	Date
Blur	10338	ultrahd.jpg	--	16/06/2021 12:55:52
Blur	8932	ultrahd.jpg	--	16/06/2021 12:56:20

Average: 9635

## MultiThread

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	8186	ultrahd.jpg	2	16/06/2021 01:14:47

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
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Filter Used	Duration	File Used	Number of Threads	Date
Blur	8951	ultrahd.jpg	4	16/06/2021 01:33:00

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	7661	ultrahd.jpg	8	16/06/2021 01:33:28

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	7869	ultrahd.jpg	12	16/06/2021 01:33:54

Threadpool

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	829	ultrahd.jpg	2	16/06/2021 01:34:52
Blur	673	ultrahd.jpg	2	16/06/2021 01:35:31

Average: 751

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	899	ultrahd.jpg	4	16/06/2021 01:35:53
Blur	1252	ultrahd.jpg	4	16/06/2021 01:36:17

Average: 1075,5

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	1167	ultrahd.jpg	8	16/06/2021 01:36:48
Blur	970	ultrahd.jpg	8	16/06/2021 01:37:26

Average: 1068,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Blur	1208	ultrahd.jpg	12	16/06/2021 01:37:58
Blur	904	ultrahd.jpg	12	16/06/2021 01:38:19

Average: 1056

# Concurrent Grayscale & Brightness

Windows - Processor: Intel(R) Core(TM) i7-8665U CPU @ 1.90GHz 2.11 GHz

## Image cat.jpg

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	2816	cat.jpg	2	16/06/2021 02:14:12
Grayscale & Brightness	2865	cat.jpg	2	16/06/2021 02:14:22
Grayscale & Brightness	2844	cat.jpg	2	16/06/2021 02:14:42
Grayscale & Brightness	2730	cat.jpg	2	16/06/2021 02:14:49
Grayscale & Brightness	2835	cat.jpg	2	16/06/2021 02:14:57
Grayscale & Brightness	2658	cat.jpg	2	16/06/2021 02:15:06
Grayscale & Brightness	2813	cat.jpg	2	16/06/2021 02:15:14
Grayscale & Brightness	2755	cat.jpg	2	16/06/2021 02:15:37
Grayscale & Brightness	2783	cat.jpg	2	16/06/2021 02:15:45
Grayscale & Brightness	2865	cat.jpg	2	16/06/2021 02:15:52

Average: 2796,4

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	2718	cat.jpg	4	16/06/2021 02:19:45
Grayscale & Brightness	2969	cat.jpg	4	16/06/2021 02:19:53
Grayscale & Brightness	2747	cat.jpg	4	16/06/2021 02:20:22
Grayscale & Brightness	2724	cat.jpg	4	16/06/2021 02:20:31
Grayscale & Brightness	2814	cat.jpg	4	16/06/2021 02:20:38
Grayscale & Brightness	2757	cat.jpg	4	16/06/2021 02:20:50
Grayscale & Brightness	2764	cat.jpg	4	16/06/2021 02:20:58
Grayscale & Brightness	2803	cat.jpg	4	16/06/2021 02:21:05
Grayscale & Brightness	2755	cat.jpg	4	16/06/2021 02:21:14
Grayscale & Brightness	2985	cat.jpg	4	16/06/2021 02:21:23

Average: 2803,6

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	2793	cat.jpg	8	16/06/2021 02:21:41
Grayscale & Brightness	2784	cat.jpg	8	16/06/2021 02:21:48



Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	2793	cat.jpg	8	16/06/2021 02:21:41
Grayscale & Brightness	2784	cat.jpg	8	16/06/2021 02:21:48
Grayscale & Brightness	2778	cat.jpg	8	16/06/2021 12:49:40
Grayscale & Brightness	2855	cat.jpg	8	16/06/2021 12:49:49
Grayscale & Brightness	2847	cat.jpg	8	16/06/2021 12:49:57
Grayscale & Brightness	2783	cat.jpg	8	16/06/2021 12:50:05
Grayscale & Brightness	2851	cat.jpg	8	16/06/2021 12:50:15
Grayscale & Brightness	2677	cat.jpg	8	16/06/2021 12:50:29

Average: 2794,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	2677	cat.jpg	12	16/06/2021 12:50:54
Grayscale & Brightness	2712	cat.jpg	12	16/06/2021 12:51:02
Grayscale & Brightness	2699	cat.jpg	12	16/06/2021 12:51:11
Grayscale & Brightness	2775	cat.jpg	12	16/06/2021 12:51:19
Grayscale & Brightness	2760	cat.jpg	12	16/06/2021 12:51:26
Grayscale & Brightness	2832	cat.jpg	12	16/06/2021 12:51:33
Grayscale & Brightness	2728	cat.jpg	12	16/06/2021 12:51:43
Grayscale & Brightness	2772	cat.jpg	12	16/06/2021 12:51:52
Grayscale & Brightness	2767	cat.jpg	12	16/06/2021 12:52:00
Grayscale & Brightness	2755	cat.jpg	12	16/06/2021 12:52:07

Average: 2747,7

Image turtle.jpg

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	232	turtle.jpg	2	16/06/2021 12:52:25
Grayscale & Brightness	234	turtle.jpg	2	16/06/2021 12:52:34
Grayscale & Brightness	248	turtle.jpg	2	16/06/2021 12:52:38
Grayscale & Brightness	222	turtle.jpg	2	16/06/2021 12:52:42
Grayscale & Brightness	263	turtle.jpg	2	16/06/2021 12:52:49
Grayscale & Brightness	316	turtle.jpg	2	16/06/2021 12:52:54
Grayscale & Brightness	239	turtle.jpg	2	16/06/2021 12:52:59

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	237	turtle.jpg	2	16/06/2021 12:53:06
Grayscale & Brightness	218	turtle.jpg	2	16/06/2021 12:53:11
Grayscale & Brightness	222	turtle.jpg	2	16/06/2021 12:53:16

Average: 243,1

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	223	turtle.jpg	4	16/06/2021 12:53:32
Grayscale & Brightness	271	turtle.jpg	4	16/06/2021 12:53:36
Grayscale & Brightness	263	turtle.jpg	4	16/06/2021 12:53:41
Grayscale & Brightness	253	turtle.jpg	4	16/06/2021 12:53:47
Grayscale & Brightness	240	turtle.jpg	4	16/06/2021 12:53:51
Grayscale & Brightness	233	turtle.jpg	4	16/06/2021 12:53:57
Grayscale & Brightness	238	turtle.jpg	4	16/06/2021 12:54:01
Grayscale & Brightness	271	turtle.jpg	4	16/06/2021 12:54:05
Grayscale & Brightness	238	turtle.jpg	4	16/06/2021 12:54:15
Grayscale & Brightness	269	turtle.jpg	4	16/06/2021 12:54:19

Average: 249,9

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	231	turtle.jpg	8	16/06/2021 12:54:35
Grayscale & Brightness	222	turtle.jpg	8	16/06/2021 12:54:40
Grayscale & Brightness	240	turtle.jpg	8	16/06/2021 12:54:44
Grayscale & Brightness	263	turtle.jpg	8	16/06/2021 12:54:59
Grayscale & Brightness	237	turtle.jpg	8	16/06/2021 12:55:04
Grayscale & Brightness	218	turtle.jpg	8	16/06/2021 12:55:08
Grayscale & Brightness	238	turtle.jpg	8	16/06/2021 12:55:12
Grayscale & Brightness	246	turtle.jpg	8	16/06/2021 12:55:17
Grayscale & Brightness	236	turtle.jpg	8	16/06/2021 12:55:21
Grayscale & Brightness	222	turtle.jpg	8	16/06/2021 12:55:26

Average: 235,3

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
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Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	228	turtle.jpg	12	16/06/2021 12:55:43
Grayscale & Brightness	229	turtle.jpg	12	16/06/2021 12:55:48
Grayscale & Brightness	225	turtle.jpg	12	16/06/2021 12:56:17
Grayscale & Brightness	238	turtle.jpg	12	16/06/2021 12:56:21
Grayscale & Brightness	285	turtle.jpg	12	16/06/2021 12:56:26
Grayscale & Brightness	269	turtle.jpg	12	16/06/2021 12:56:30
Grayscale & Brightness	237	turtle.jpg	12	16/06/2021 12:56:35
Grayscale & Brightness	254	turtle.jpg	12	16/06/2021 12:56:39
Grayscale & Brightness	270	turtle.jpg	12	16/06/2021 12:56:43
Grayscale & Brightness	263	turtle.jpg	12	16/06/2021 12:56:48

Average: 249,8

## Image tinyCar.jpg

2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	115	tinyCar.jpg	2	16/06/2021 01:07:59
Grayscale & Brightness	120	tinyCar.jpg	2	16/06/2021 01:08:05
Grayscale & Brightness	126	tinyCar.jpg	2	16/06/2021 01:08:09
Grayscale & Brightness	146	tinyCar.jpg	2	16/06/2021 01:08:13
Grayscale & Brightness	113	tinyCar.jpg	2	16/06/2021 01:08:19
Grayscale & Brightness	138	tinyCar.jpg	2	16/06/2021 01:08:23
Grayscale & Brightness	138	tinyCar.jpg	2	16/06/2021 01:08:27
Grayscale & Brightness	141	tinyCar.jpg	2	16/06/2021 01:08:31
Grayscale & Brightness	109	tinyCar.jpg	2	16/06/2021 01:08:35
Grayscale & Brightness	138	tinyCar.jpg	2	16/06/2021 01:08:39

Average: 128,4

4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	160	tinyCar.jpg	4	16/06/2021 01:08:51
Grayscale & Brightness	121	tinyCar.jpg	4	16/06/2021 01:08:56
Grayscale & Brightness	102	tinyCar.jpg	4	16/06/2021 01:09:00
Grayscale & Brightness	116	tinyCar.jpg	4	16/06/2021 01:09:06

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	121	tinyCar.jpg	4	16/06/2021 01:09:12
Grayscale & Brightness	138	tinyCar.jpg	4	16/06/2021 01:09:16
Grayscale & Brightness	132	tinyCar.jpg	4	16/06/2021 01:09:20
Grayscale & Brightness	134	tinyCar.jpg	4	16/06/2021 01:09:24
Grayscale & Brightness	116	tinyCar.jpg	4	16/06/2021 01:09:28
Grayscale & Brightness	108	tinyCar.jpg	4	16/06/2021 01:09:33

Average: 124,8

8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	106	tinyCar.jpg	8	16/06/2021 01:09:56
Grayscale & Brightness	140	tinyCar.jpg	8	16/06/2021 01:10:00
Grayscale & Brightness	170	tinyCar.jpg	8	16/06/2021 01:10:04
Grayscale & Brightness	108	tinyCar.jpg	8	16/06/2021 01:10:10
Grayscale & Brightness	121	tinyCar.jpg	8	16/06/2021 01:10:13
Grayscale & Brightness	140	tinyCar.jpg	8	16/06/2021 01:10:17
Grayscale & Brightness	117	tinyCar.jpg	8	16/06/2021 01:10:26
Grayscale & Brightness	132	tinyCar.jpg	8	16/06/2021 01:10:30
Grayscale & Brightness	107	tinyCar.jpg	8	16/06/2021 01:10:35
Grayscale & Brightness	194	tinyCar.jpg	8	16/06/2021 01:10:39

Average: 133,5

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	137	tinyCar.jpg	12	16/06/2021 01:10:42
Grayscale & Brightness	130	tinyCar.jpg	12	16/06/2021 01:10:47
Grayscale & Brightness	139	tinyCar.jpg	12	16/06/2021 01:10:50
Grayscale & Brightness	136	tinyCar.jpg	12	16/06/2021 01:10:54
Grayscale & Brightness	136	tinyCar.jpg	12	16/06/2021 01:10:58
Grayscale & Brightness	102	tinyCar.jpg	12	16/06/2021 01:11:02
Grayscale & Brightness	159	tinyCar.jpg	12	16/06/2021 01:11:05
Grayscale & Brightness	126	tinyCar.jpg	12	16/06/2021 01:11:12
Grayscale & Brightness	145	tinyCar.jpg	12	16/06/2021 01:11:16
Grayscale & Brightness	109	tinyCar.jpg	12	16/06/2021 01:11:21

Average: 131,9

## Image ultraHd.jpg

### 2 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	10447	ultraHd.jpg	2	16/06/2021 02:16:08
Grayscale & Brightness	9970	ultraHd.jpg	2	16/06/2021 02:16:24
Grayscale & Brightness	9914	ultraHd.jpg	2	16/06/2021 02:16:41
Grayscale & Brightness	10353	ultraHd.jpg	2	16/06/2021 02:16:58
Grayscale & Brightness	10093	ultraHd.jpg	2	16/06/2021 02:17:14
Grayscale & Brightness	10178	ultraHd.jpg	2	16/06/2021 02:17:31
Grayscale & Brightness	10156	ultraHd.jpg	2	16/06/2021 02:17:46
Grayscale & Brightness	10524	ultraHd.jpg	2	16/06/2021 12:57:39
Grayscale & Brightness	10038	ultraHd.jpg	2	16/06/2021 12:58:12
Grayscale & Brightness	10127	ultraHd.jpg	2	16/06/2021 12:58:28

Average: 10180

### 4 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	10151	ultraHd.jpg	4	16/06/2021 02:18:15
Grayscale & Brightness	9786	ultraHd.jpg	4	16/06/2021 02:18:32
Grayscale & Brightness	10322	ultraHd.jpg	4	16/06/2021 02:18:48
Grayscale & Brightness	9978	ultraHd.jpg	4	16/06/2021 02:19:10
Grayscale & Brightness	10115	ultraHd.jpg	4	16/06/2021 02:19:27
Grayscale & Brightness	10096	ultraHd.jpg	4	16/06/2021 12:59:03
Grayscale & Brightness	9981	ultraHd.jpg	4	16/06/2021 12:59:25
Grayscale & Brightness	10122	ultraHd.jpg	4	16/06/2021 12:59:42
Grayscale & Brightness	10368	ultraHd.jpg	4	16/06/2021 12:59:58
Grayscale & Brightness	10197	ultraHd.jpg	4	16/06/2021 01:00:14

Average: 10111,6

### 8 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	9982	ultraHd.jpg	8	16/06/2021 12:57:56
Grayscale & Brightness	10360	ultraHd.jpg	8	16/06/2021 01:00:39
Grayscale & Brightness	9737	ultraHd.jpg	8	16/06/2021 01:00:59

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	10076	ultraHd.jpg	8	16/06/2021 01:01:15
Grayscale & Brightness	10112	ultraHd.jpg	8	16/06/2021 01:01:50
Grayscale & Brightness	9992	ultraHd.jpg	8	16/06/2021 01:02:05
Grayscale & Brightness	10046	ultraHd.jpg	8	16/06/2021 01:02:21
Grayscale & Brightness	10179	ultraHd.jpg	8	16/06/2021 01:02:43
Grayscale & Brightness	10133	ultraHd.jpg	8	16/06/2021 01:03:01
Grayscale & Brightness	10272	ultraHd.jpg	8	16/06/2021 01:03:17

Average: 10088,9

12 threads

Filter Used	Duration	File Used	Number of Threads	Date
Grayscale & Brightness	10067	ultraHd.jpg	12	16/06/2021 01:03:44
Grayscale & Brightness	10418	ultraHd.jpg	12	16/06/2021 01:04:00
Grayscale & Brightness	10242	ultraHd.jpg	12	16/06/2021 01:04:16
Grayscale & Brightness	9948	ultraHd.jpg	12	16/06/2021 01:04:32
Grayscale & Brightness	10422	ultraHd.jpg	12	16/06/2021 01:04:48
Grayscale & Brightness	10382	ultraHd.jpg	12	16/06/2021 01:05:05
Grayscale & Brightness	10082	ultraHd.jpg	12	16/06/2021 01:05:21
Grayscale & Brightness	10004	ultraHd.jpg	12	16/06/2021 01:06:31
Grayscale & Brightness	9617	ultraHd.jpg	12	16/06/2021 01:07:00
Grayscale & Brightness	9707	ultraHd.jpg	12	16/06/2021 01:07:15

Average: 10088,9

# Concurrent Grayscale & Brightness

MacOS - Processor: 3,1 GHz Dual-Core Intel Core i7

## Image cat.jpg

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	5321	cat.jpg	2	16/06/2021 01:50:24
Grayscale & Brightness	4518	cat.jpg	2	16/06/2021 01:50:39

Average: 4919,5

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	4213	cat.jpg	4	16/06/2021 01:51:01
Grayscale & Brightness	4422	cat.jpg	4	16/06/2021 01:51:13

Average: 4317,5

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	4715	cat.jpg	8	16/06/2021 01:51:28
Grayscale & Brightness	4719	cat.jpg	8	16/06/2021 01:51:45

Average: 4717

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	5253	cat.jpg	12	16/06/2021 01:51:58
Grayscale & Brightness	4733	cat.jpg	12	16/06/2021 01:52:12

Average: 4993

## Image turtle.jpg

2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	411	turtle.jpg	2	16/06/2021 01:57:06
Grayscale & Brightness	391	turtle.jpg	2	16/06/2021 01:57:22

Average: 401

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	407	turtle.jpg	4	16/06/2021 01:57:32
Grayscale & Brightness	394	turtle.jpg	4	16/06/2021 01:57:40

Average: 400,5

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	394	turtle.jpg	8	16/06/2021 01:57:49
Grayscale & Brightness	391	turtle.jpg	8	16/06/2021 01:57:56

Average: 392,5

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	498	turtle.jpg	12	16/06/2021 01:58:03
Grayscale & Brightness	404	turtle.jpg	12	16/06/2021 01:58:09

Average: 451

## Image tinyCar.jpg

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2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	267	tinyCar.jpg	2	16/06/2021 01:55:25
Grayscale & Brightness	212	tinyCar.jpg	2	16/06/2021 01:55:32

Average: 239,5

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	220	tinyCar.jpg	4	16/06/2021 01:55:38
Grayscale & Brightness	215	tinyCar.jpg	4	16/06/2021 01:55:47

Average: 217,5

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	207	tinyCar.jpg	8	16/06/2021 01:55:55
Grayscale & Brightness	213	tinyCar.jpg	8	16/06/2021 01:56:03

Average: 210



12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	206	tinyCar.jpg	12	16/06/2021 01:56:11
Grayscale & Brightness	205	tinyCar.jpg	12	16/06/2021 01:56:24

Average: 205,5

Image ultraHd.jpg

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2 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	27922	ultraHd.jpg	2	16/06/2021 01:53:09

4 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	24613	ultraHd.jpg	4	16/06/2021 01:53:41

8 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	21128	ultraHd.jpg	8	16/06/2021 01:54:15

12 threads

Filter Used	Duration (milliseconds)	File Used	Number of Threads	Date
Grayscale & Brightness	20861	ultraHd.jpg	12	16/06/2021 01:54:59