

MP 7

This chart indicates the number of keypoints for each image per detector

	Shi-Tomasi	Harris	BRISK	SIFT	FAS T	AKAZE	ORB
Image 1	1370	115	2757	1438	1824	1351	500
Image 2	1301	98	2777	1371	1832	1327	500
Image 3	1361	113	2741	1380	1810	1311	500
Image 4	1358	121	2735	1335	1817	1351	500
Image 5	1333	160	2757	1305	1793	1360	500
Image 6	1284	383	2695	1369	1796	1347	500
Image 7	1322	85	2715	1396	1788	1363	500
Image 8	1366	210	2628	1382	1695	1331	500
Image 9	1389	171	2639	1463	1749	1358	500
Image 10	1339	281	2672	1422	1770	1331	500

MP 8

This chart indicates the number of matched keypoints for each detector and descriptor

detector	descriptor	Image 2	Image 3	Image 4	Image 5	Image 6	Image 7	Image 8	Image 9	Image 10
SHITOMASI	BRISK	125	118	123	120	120	113	114	123	111
	BRIEF	125	118	123	120	120	113	114	123	111
	ORB	125	118	123	120	120	113	114	123	111
	FREAK	125	118	123	120	120	113	114	123	111
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SIFT	125	118	123	120	120	113	114	123	111
HARRIS	BRISK	17	14	18	21	26	43	18	31	26
	BRIEF	17	14	18	21	26	43	18	31	26
	ORB	17	14	18	21	26	43	18	31	26
	FREAK	17	14	18	21	26	43	18	31	26
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SIFT	17	14	18	21	26	43	18	31	26
BRISK	BRISK	264	282	282	277	297	279	289	272	266
	BRIEF	264	282	282	277	297	279	289	272	266
	ORB	264	282	282	277	297	279	289	272	266
	FREAK	242	260	263	264	274	256	269	255	243
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SIFT	264	282	282	277	297	279	289	272	266
SIFT	BRISK	137	132	124	137	134	140	137	148	159
	BRIEF	138	132	124	137	134	140	137	148	159
	ORB	OUT OF MEMORY - 70 GIGS REQUIRED								
	FREAK	137	131	123	136	133	139	135	147	158
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SIFT	138	132	124	137	134	140	137	148	159
FAST	BRISK	149	152	150	155	149	149	156	150	138
	BRIEF	149	152	150	155	149	149	156	150	138

	ORB	149	152	150	155	149	149	156	150	138
	FREAK	149	152	150	155	149	149	156	150	138
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SIFT	149	152	150	155	149	149	156	150	138
AKAZE	BRISK	166	157	161	155	163	164	173	175	177
	BRIEF	166	157	161	155	163	164	173	175	177
	ORB	166	157	161	155	163	164	173	175	177
	FREAK	166	157	161	155	163	164	173	175	177
	AKAZE	166	157	161	155	163	164	173	175	177
	SIFT	166	157	161	155	163	164	173	175	177
ORB	BRISK	83	93	95	103	101	116	120	120	119
	BRIEF	92	102	106	113	109	125	130	129	127
	ORB	92	102	106	113	109	125	130	129	127
	FREAK	46	53	56	65	55	64	66	71	73
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SIFT	92	102	106	113	109	125	130	129	127

MP9

This chart indicates the logarithmic time (in milliseconds) for detect/extract of detector/descriptor. The green filled cells indicates the top 3 fastest times.

detector	descriptor	Image 2	Image 3	Image 4	Image 5	Image 6	Image 7	Image 8	Image 9	Image 10	avg
SHITOMASI	BRISK	1.238	1.261	1.249	1.250	1.220	1.243	1.246	1.243	1.225	1.242
	BRIEF	1.205	1.240	1.225	1.310	1.197	1.236	1.245	1.225	1.244	1.236
	ORB	1.292	1.281	1.299	1.314	1.309	1.323	1.328	1.284	1.319	1.306
	FREAK	1.777	1.867	1.768	1.773	1.706	1.687	1.694	1.728	1.801	1.756
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	SIFT	1.790	1.644	1.613	1.611	1.645	1.615	1.648	1.730	1.695	1.666
HARRIS	BRISK	1.211	1.212	1.335	1.429	1.441	1.263	1.467	1.267	1.358	1.331
	BRIEF	1.220	1.193	1.185	1.219	1.412	1.208	1.243	1.228	1.298	1.245
	ORB	1.416	1.478	1.406	1.412	1.585	1.421	1.511	1.430	1.510	1.463
	FREAK	1.721	1.688	1.696	1.737	1.866	1.706	1.726	1.717	1.738	1.733
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	SIFT	1.575	1.593	1.596	1.598	1.679	1.581	1.657	1.638	1.677	1.621
BRISK	BRISK	1.591	1.595	1.585	1.628	1.677	1.597	1.649	1.608	1.647	1.620
	BRIEF	1.596	1.580	1.562	1.637	1.626	1.681	1.593	1.625	1.555	1.606
	ORB	1.689	1.679	1.681	1.696	1.710	1.729	1.690	1.749	1.696	1.702
	FREAK	1.886	1.872	1.883	1.873	1.946	1.919	1.885	1.923	1.864	1.895
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	SIFT	1.891	1.898	1.894	1.894	1.885	1.893	1.894	1.891	1.927	1.896
SIFT	BRISK	2.161	2.083	2.104	2.138	2.088	2.099	2.136	2.104	2.113	2.114
	BRIEF	2.101	2.151	2.137	2.109	2.114	2.164	2.110	2.116	2.140	2.127
	ORB	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	FREAK	2.194	2.274	2.209	2.213	2.249	2.198	2.192	2.263	2.209	2.222
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	SIFT	2.301	2.304	2.274	2.323	2.344	2.331	2.327	2.346	2.312	2.318
FAST	BRISK	0.546	0.473	0.435	0.395	0.514	0.505	0.500	0.627	0.446	0.493
	BRIEF	0.449	0.360	0.231	0.222	0.327	0.353	0.279	0.272	0.312	0.312

	ORB	0.735	0.741	0.692	0.731	0.759	0.706	0.760	0.712	0.757	0.733
	FREAK	1.604	1.581	1.597	1.591	1.620	1.626	1.656	1.586	1.589	1.606
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	SIFT	1.506	1.447	1.474	1.417	1.454	1.499	1.434	1.460	1.411	1.456
AKAZE	BRISK	1.877	1.802	1.942	1.767	1.911	1.802	1.854	1.834	1.918	1.856
	BRIEF	1.781	1.772	1.900	1.818	1.755	1.764	1.751	1.766	1.820	1.792
	ORB	1.807	1.797	1.803	1.879	1.907	1.864	1.844	1.851	1.810	1.840
	FREAK	1.981	1.992	2.070	2.050	1.988	1.989	2.036	2.032	1.959	2.011
	AKAZE	2.065	2.088	2.131	2.047	2.033	2.089	2.148	2.066	2.039	2.078
	SIFT	1.885	1.928	1.951	1.998	1.966	1.925	1.912	2.012	1.981	1.951
ORB	BRISK	0.926	0.890	0.884	0.917	0.961	0.907	0.947	0.998	0.924	0.928
	BRIEF	0.862	0.905	0.871	0.839	0.863	0.894	0.879	0.906	0.853	0.874
	ORB	1.349	1.306	1.278	1.284	1.280	1.282	1.277	1.290	1.286	1.292
	FREAK	1.687	1.677	1.689	1.678	1.666	1.650	1.659	1.672	1.654	1.670
	AKAZE	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	SIFT	1.703	1.761	1.739	1.725	1.752	1.731	1.741	1.762	1.750	1.740

Top 3 fastest:

- 1) FAST detector with BRIEF descriptor
- 2) FAST detector with BRISK descriptor
- 3) FAST detector with ORB descriptor