

Matlab - JpegDNA with Paircode		Python		Kodim1_gray		Python with default frequencies		Jpeg + Transcoding	
Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR
6.384737008		44.22600911	6.31	44.22	6.07	44.22		24.3998	34.928
6.489649908		44.05039746	6.41	44.05	6.17	44.05		21.404	35.7774
7.491505242		42.64841114	7.41	42.65	7.25	42.65		18.9898	36.6094
9.232400133		40.75033579	9.15	40.75	9.08	40.75		16.0609	37.7526
10.763715		39.45521756	10.64	39.46	10.61	39.46		12.8963	39.4401
12.1574029		38.49257624	11.99	38.49	11.99	38.49		12.149	39.9289
			13.25	37.74	13.24	37.74		11.2939	40.4654
			14.43	37.13	14.42	37.13		10.4928	41.082
			15.56	36.62	15.54	36.62		9.6626	41.7815
			16.6	36.17	16.58	36.17		8.7474	42.6568
			17.59	35.77	17.57	35.77			

Matlab - JpegDNA with Paircode		Python		Kodim2_gray		Python with default frequencies		Jpeg + Transcoding	
Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR
6.166002513		42.95483696	6.1	42.95	5.99	42.95		22.483	36.5207
6.292764895		42.81940193	6.22	42.82	6.12	42.82		18.5275	37.5545
7.48086934		41.70257286	7.4	41.71	7.3	41.71		14.1915	39.0352
9.654566213		40.12721704	9.57	40.13	9.52	40.13		13.1866	39.4431
11.7562589		39.04439054	11.63	39.04	11.61	39.04		12.1091	39.8891
13.69488161		38.21533635	13.57	38.22	13.55	38.22		11.0878	40.4055
			15.34	37.55	15.29	37.55		10.1035	40.9979
			17	36.99	16.95	36.99		9.0171	41.7145
			18.51	36.53	18.43	36.53			
			19.93	36.12	19.8	36.12			
			21.31	35.77	21.06	35.77			

Matlab - JpegDNA with Paircode		Python		Kodim3_gray		Python with default frequencies		Jpeg + Transcoding	
Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR
5.961815308		42.97252813	5.9	42.97	5.8	42.97		23.7306	34.8175
6.071579809		42.7939662	6.01	42.79	5.91	42.79		20.5281	35.5837
7.143666885		41.3451737	7.07	41.35	6.99	41.35		16.9872	36.6661
9.071432897		39.4268207	8.99	39.43	8.92	39.43		13.246	38.2056
10.81407533		38.2069859	10.73	38.21	10.67	38.21		12.3908	38.6457
12.41226814		37.34243017	12.33	37.34	12.28	37.34		11.4359	39.1461
			13.82	36.65	13.82	36.65		10.5018	39.7598
			15.23	36.09	15.24	36.09		9.5971	40.4731
			16.58	35.59	16.58	35.59		8.5866	41.3524
			17.92	35.18	17.91	35.18			
			19.27	34.81	19.23	34.81			

Matlab - JpegDNA with Paircode		Python		Kodim4_gray		Python with default frequencies		Jpeg + Transcoding	
Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR
4.748584057		41.58455201	4.67	41.58	4.55	41.58		24.5096	30.6014
4.827638703		41.38260477	4.75	41.38	4.63	41.38		20.6732	31.4961
5.585246289		39.68964672	5.5	39.69	5.42	39.69		18.0393	32.2564
6.985197916		37.43431912	6.88	37.43	6.87	37.43		15.79	33.0532
8.316575369		35.99358349	8.22	35.99	8.22	35.99		13.1065	34.1808
9.540343737		34.96508748	9.45	34.97	9.45	34.97		10.2261	35.9825
			10.6	34.17	10.59	34.17		9.542	36.5118
			11.66	33.56	11.65	33.56		8.8085	37.0992
			12.66	33.05	12.64	33.05		8.118	37.8106
			13.6	32.62	13.56	32.62		7.4341	38.6562
			14.52	32.26	14.45	32.26		6.7038	39.6982

Matlab - JpegDNA with Paircode		Python		Kodim5_gray		Python with default frequencies		Jpeg + Transcoding	
Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR	Compression-rate	PSNR
7.404500518		44.5225567	7.33	44.524	7.24	44.524		26.9265	38.5027
7.551		44.3987	7.48	44.398	7.39	44.398		22.4445	39.4911
9.0507		43.3263	8.95	43.326	8.9	43.326		17.3524	40.8594
11.8429		41.8666	11.7	41.87	11.68	41.87		16.2014	41.2363
14.3427		40.8683	14.18	40.87	14.17	40.87		14.8178	41.6491
16.5479		40.096	16.37	40.098	16.37	40.098		13.4966	42.1346
			18.43	39.48	18.42	39.48		12.2699	42.6771
			20.31	38.97	20.26	38.97		10.8173	43.3381
			22.14	38.51	21.98	38.51			
			23.9	38.12	23.63	38.12			
			25.62	37.77	25.21	37.77			

