

Bench report : 19-Dec-2012 à 19h10m47s

Wednesday 19th December, 2012

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1 Mesh : disque4-1

1.1 Function : MassAssembling

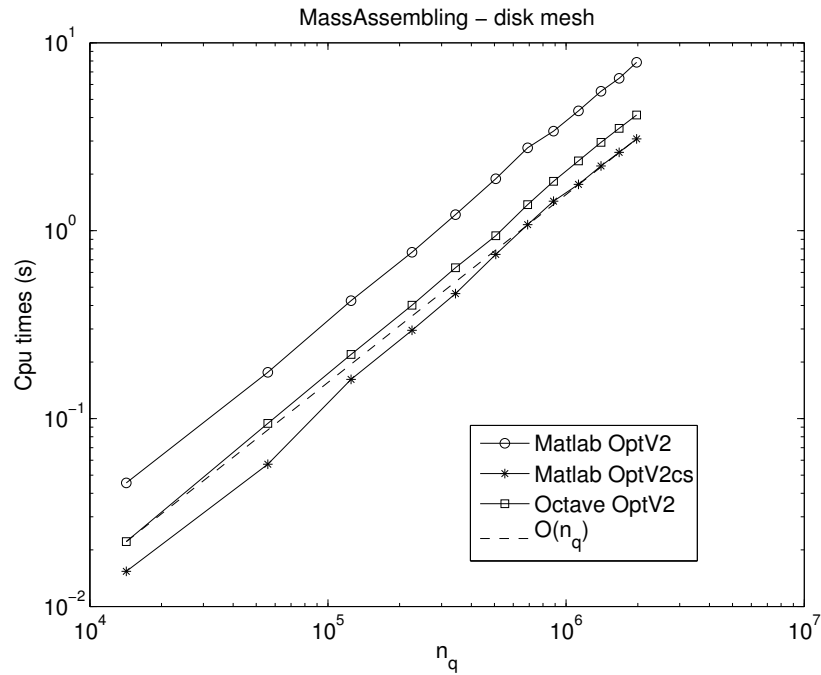


Figure 1: Comparison of Matlab/Octave function `MassAssembling`

1.2 Function : MassWAssembling

1.3 Function : StiffAssembling

N	n_q	Matlab OptV2 (R2012b)	Matlab OptV2cs (R2012b)	Octave OptV2 (3.6.3)
100	14222	0.045	0.015	0.022
200	55919	0.176	0.057	0.094
300	125010	0.424	0.162	0.220
400	225547	0.767	0.295	0.401
500	343082	1.217	0.462	0.635
600	506706	1.889	0.748	0.939
700	689716	2.758	1.077	1.376
800	885521	3.385	1.437	1.832
900	1127090	4.344	1.763	2.350
1000	1401129	5.517	2.210	2.950
1100	1671052	6.466	2.613	3.505
1200	1978602	7.865	3.082	4.124

Table 1: fonction MassAssembling, maillage disque4-1-<N>.msh : temps (s)

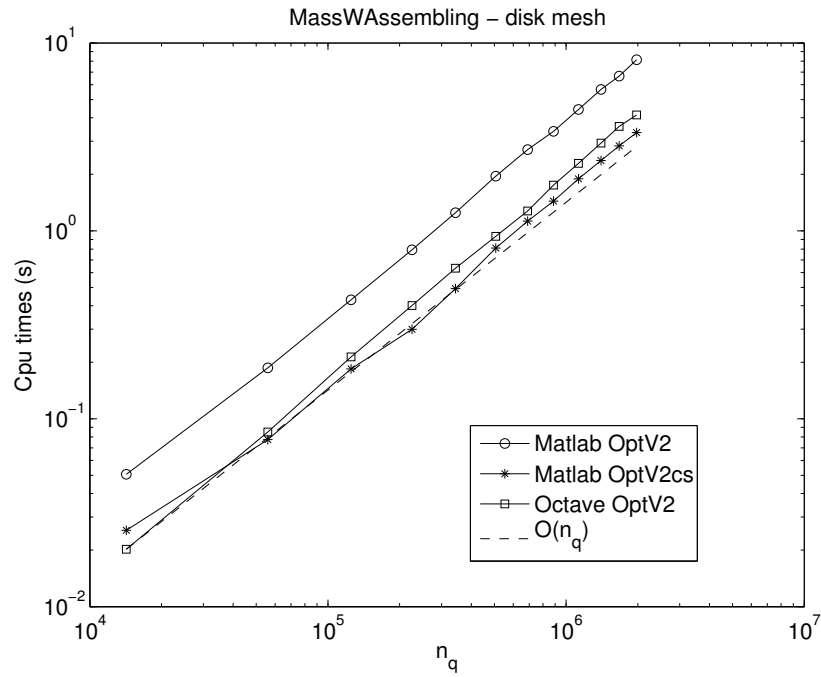


Figure 2: Comparison of Matlab/Octave function MassWAssembling

N	n_q	Matlab OptV2 (R2012b)	Matlab OptV2cs (R2012b)	Octave OptV2 (3.6.3)
100	14222	0.051	0.026	0.020
200	55919	0.187	0.077	0.085
300	125010	0.430	0.184	0.213
400	225547	0.793	0.299	0.401
500	343082	1.250	0.493	0.633
600	506706	1.954	0.810	0.935
700	689716	2.709	1.127	1.277
800	885521	3.388	1.441	1.753
900	1127090	4.424	1.891	2.287
1000	1401129	5.659	2.366	2.933
1100	1671052	6.659	2.833	3.594
1200	1978602	8.142	3.338	4.139

Table 2: fonction MassWAssembling, maillage disque4-1-<N>.msh : temps (s)

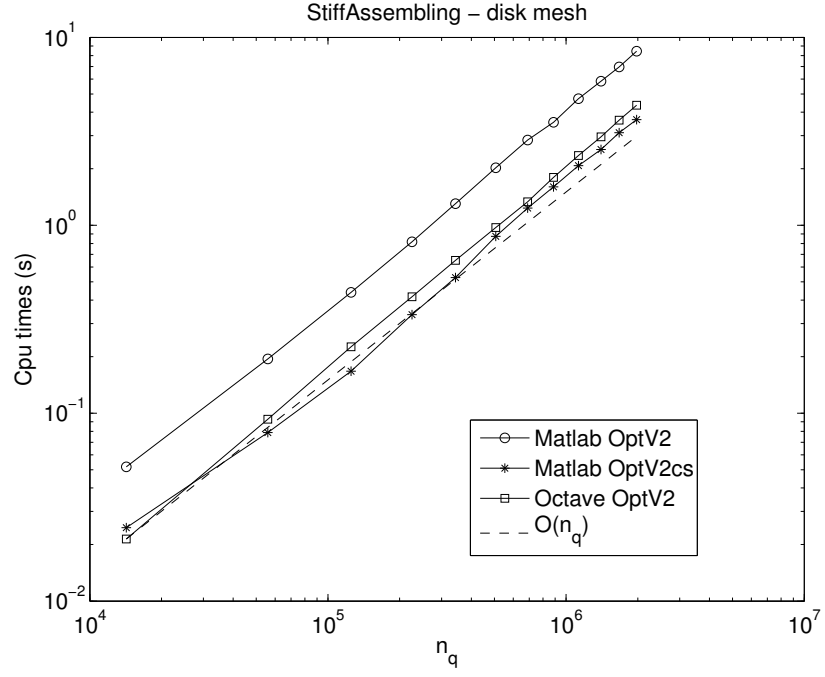


Figure 3: Comparison of Matlab/Octave function `StiffAssembling`

N	n_q	Matlab OptV2 (R2012b)	Matlab OptV2cs (R2012b)	Octave OptV2 (3.6.3)
100	14222	0.052	0.025	0.021
200	55919	0.195	0.079	0.093
300	125010	0.440	0.167	0.226
400	225547	0.817	0.335	0.417
500	343082	1.304	0.527	0.651
600	506706	2.025	0.873	0.973
700	689716	2.844	1.235	1.333
800	885521	3.535	1.602	1.799
900	1127090	4.719	2.078	2.352
1000	1401129	5.850	2.531	2.957
1100	1671052	6.967	3.113	3.628
1200	1978602	8.439	3.649	4.356

Table 3: fonction `StiffAssembling`, maillage disque4-1-<N>.msh : temps (s)

2 Mesh : carre4-1

2.1 Function : MassAssembling

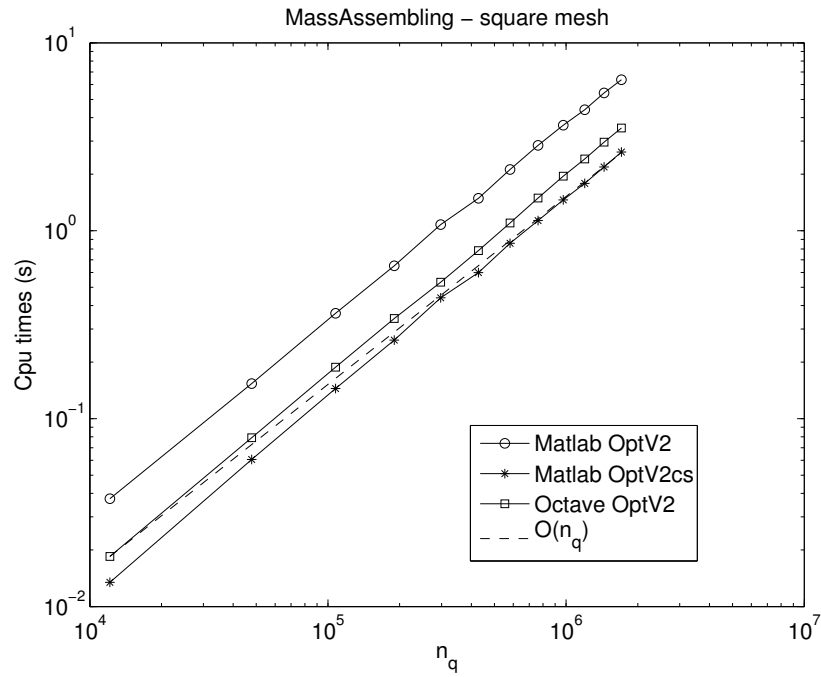


Figure 4: Comparison of Matlab/Octave function `MassAssembling`

N	n_q	Matlab OptV2 (R2012b)	Matlab OptV2cs (R2012b)	Octave OptV2 (3.6.3)
100	12139	0.037	0.013	0.018
200	47834	0.154	0.061	0.079
300	107625	0.364	0.145	0.188
400	189794	0.651	0.262	0.341
500	297290	1.079	0.440	0.532
600	428549	1.488	0.599	0.784
700	581973	2.119	0.858	1.100
800	762704	2.847	1.133	1.494
900	973281	3.643	1.459	1.953
1000	1197591	4.408	1.786	2.410
1100	1443408	5.417	2.185	2.962
1200	1707938	6.362	2.624	3.524

Table 4: fonction `MassAssembling`, maillage carre4-1-<N>.msh : temps (s)

2.2 Function : MassWAssembling

2.3 Function : StiffAssembling

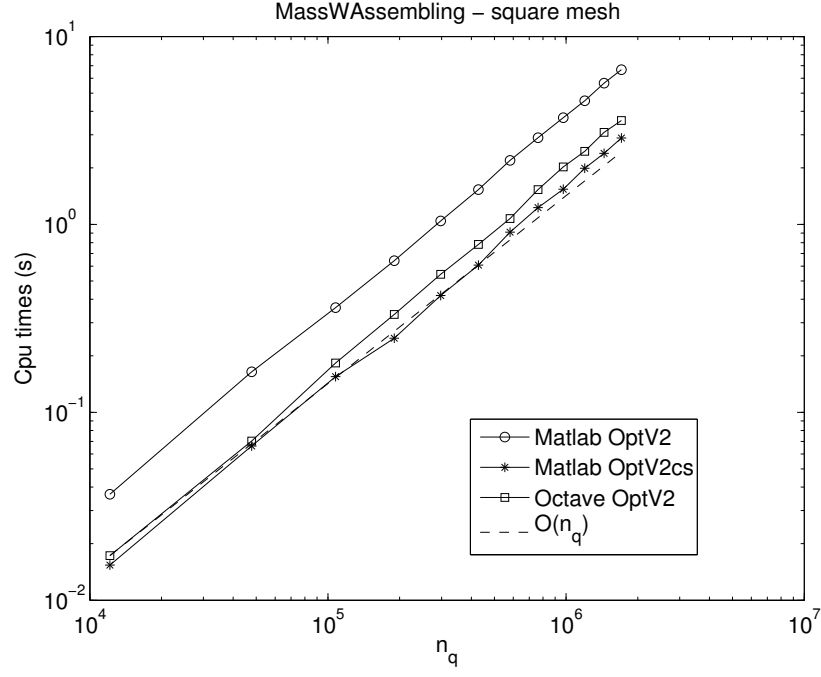


Figure 5: Comparison of Matlab/Octave function `MassWAssembling`

N	n_q	Matlab OptV2 (R2012b)	Matlab OptV2cs (R2012b)	Octave OptV2 (3.6.3)
100	12139	0.037	0.015	0.017
200	47834	0.164	0.066	0.070
300	107625	0.361	0.155	0.183
400	189794	0.642	0.248	0.332
500	297290	1.044	0.419	0.543
600	428549	1.533	0.608	0.783
700	581973	2.192	0.910	1.076
800	762704	2.896	1.229	1.531
900	973281	3.698	1.539	2.023
1000	1197591	4.551	1.990	2.450
1100	1443408	5.650	2.389	3.090
1200	1707938	6.663	2.885	3.572

Table 5: fonction `MassWAssembling`, maillage carre4-1-<N>.msh : temps (s)

N	n_q	Matlab OptV2 (R2012b)	Matlab OptV2cs (R2012b)	Octave OptV2 (3.6.3)
100	12139	0.044	0.022	0.018
200	47834	0.157	0.061	0.077
300	107625	0.368	0.144	0.193
400	189794	0.682	0.270	0.346
500	297290	1.094	0.456	0.560
600	428549	1.590	0.702	0.814
700	581973	2.268	1.010	1.119
800	762704	3.009	1.341	1.567
900	973281	3.817	1.718	2.048
1000	1197591	4.734	2.124	2.533
1100	1443408	5.955	2.674	3.087
1200	1707938	6.934	3.182	3.659

Table 6: fonction `StiffAssembling`, maillage carre4-1-<N>.msh : temps (s)

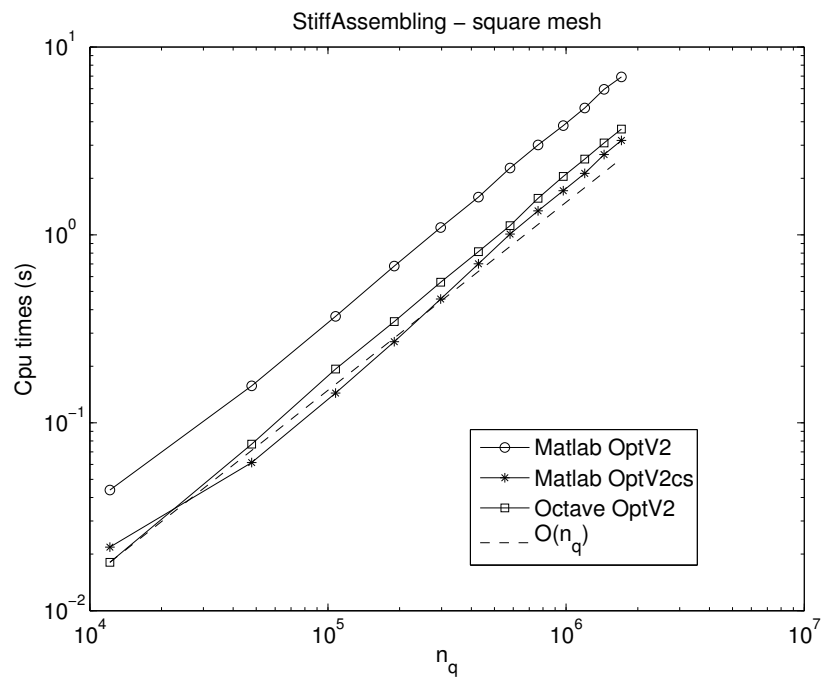


Figure 6: Comparison of Matlab/Octave function `StiffAssembling`