
 VT Aerospace Aircraft Design Software Series

Program FoilGen

NACA Airfoil Ordinate Generation. Airfoil coordinates from AEROCAL PAK2: GEOMETRY FOR AERODYNAMICS, by W. H. MASON.

Code written by William H. Mason.
 This program modified by
 - Andy Ko, Dec. 2000.
 - L. T. Leifsson, Feb. 2004.

The Department of Aerospace and Ocean Engineering,
 Virginia Tech, Blacksburg, VA 24061.
<http://www.aoe.vt.edu>, email: whmason@vt.edu

Output file with all airfoil properties.

NACA2412

I	X/C	YT/C	DYT/X	YC/C	DYC/C	XU/C(%)	YU/C(%)	XL/C(%)	YL/C(%)
1	0.0000	0.0000	99.9999	0.0000	0.1000	0.0000	0.0000	0.0000	0.0000
2	0.0077	0.0150	0.9367	0.0008	0.0981	0.6225	1.5720	0.9159	-1.4196
3	0.0154	0.0209	0.6361	0.0015	0.0962	1.3386	2.2296	1.7383	-1.9278
4	0.0231	0.0252	0.5013	0.0022	0.0942	2.0712	2.7336	2.5442	-2.2854
5	0.0308	0.0287	0.4197	0.0030	0.0923	2.8129	3.1564	3.3410	-2.5647
6	0.0385	0.0317	0.3631	0.0037	0.0904	3.5606	3.5258	4.1317	-2.7936
7	0.0462	0.0343	0.3206	0.0043	0.0885	4.3127	3.8564	4.9181	-2.9866
8	0.0538	0.0367	0.2870	0.0050	0.0865	5.0684	4.1566	5.7009	-3.1522
9	0.0615	0.0388	0.2594	0.0057	0.0846	5.8269	4.4321	6.4808	-3.2960
10	0.0692	0.0407	0.2361	0.0063	0.0827	6.5878	4.6868	7.2583	-3.4220
11	0.0769	0.0424	0.2160	0.0070	0.0808	7.3508	4.9234	8.0338	-3.5329
12	0.0846	0.0440	0.1984	0.0076	0.0788	8.1156	5.1442	8.8075	-3.6309
13	0.0923	0.0455	0.1828	0.0082	0.0769	8.8820	5.3508	9.5796	-3.7177
14	0.1000	0.0468	0.1687	0.0088	0.0750	9.6498	5.5447	10.3502	-3.7947
15	0.1077	0.0481	0.1560	0.0093	0.0731	10.4188	5.7268	11.1196	-3.8629
16	0.1154	0.0492	0.1444	0.0099	0.0712	11.1890	5.8981	11.8879	-3.9232
17	0.1231	0.0503	0.1337	0.0104	0.0692	11.9603	6.0594	12.6551	-3.9765
18	0.1308	0.0513	0.1237	0.0109	0.0673	12.7325	6.2113	13.4214	-4.0234
19	0.1385	0.0522	0.1145	0.0114	0.0654	13.5055	6.3543	14.1868	-4.0644
20	0.1462	0.0531	0.1059	0.0119	0.0635	14.2794	6.4891	14.9514	-4.1000
21	0.1538	0.0538	0.0978	0.0124	0.0615	15.0539	6.6160	15.7153	-4.1308
22	0.1615	0.0546	0.0902	0.0129	0.0596	15.8292	6.7353	16.4785	-4.1569
23	0.1692	0.0552	0.0830	0.0133	0.0577	16.6050	6.8475	17.2411	-4.1789
24	0.1769	0.0558	0.0762	0.0138	0.0558	17.3814	6.9529	18.0032	-4.1970
25	0.1846	0.0564	0.0697	0.0142	0.0538	18.1583	7.0516	18.7648	-4.2114
26	0.1923	0.0569	0.0636	0.0146	0.0519	18.9357	7.1441	19.5259	-4.2225
27	0.2000	0.0574	0.0577	0.0150	0.0500	19.7135	7.2304	20.2865	-4.2304
28	0.2077	0.0578	0.0521	0.0154	0.0481	20.4917	7.3108	21.0468	-4.2354
29	0.2154	0.0582	0.0468	0.0157	0.0462	21.2702	7.3855	21.8067	-4.2376
30	0.2231	0.0585	0.0416	0.0161	0.0442	22.0491	7.4548	22.5663	-4.2373
31	0.2308	0.0588	0.0367	0.0164	0.0423	22.8283	7.5186	23.3255	-4.2346
32	0.2385	0.0591	0.0320	0.0167	0.0404	23.6077	7.5773	24.0846	-4.2296
33	0.2462	0.0593	0.0274	0.0170	0.0385	24.3874	7.6309	24.8433	-4.2226
34	0.2538	0.0595	0.0231	0.0173	0.0365	25.1673	7.6796	25.6019	-4.2136
35	0.2615	0.0597	0.0189	0.0176	0.0346	25.9474	7.7234	26.3603	-4.2027
36	0.2692	0.0598	0.0148	0.0179	0.0327	26.7277	7.7626	27.1185	-4.1902
37	0.2769	0.0599	0.0109	0.0181	0.0308	27.5081	7.7973	27.8765	-4.1760
38	0.2846	0.0600	0.0071	0.0183	0.0288	28.2886	7.8275	28.6344	-4.1603

naca2412_full.txt

39	0.2923	0.0600	0.0035	0.0186	0.0269	29.0693	7.8533	29.3923	-4.1432
40	0.3000	0.0600	-0.0001	0.0187	0.0250	29.8500	7.8749	30.1500	-4.1249
41	0.3077	0.0600	-0.0035	0.0189	0.0231	30.6308	7.8922	30.9077	-4.1053
42	0.3154	0.0600	-0.0068	0.0191	0.0212	31.4116	7.9055	31.6653	-4.0845
43	0.3231	0.0599	-0.0100	0.0193	0.0192	32.1925	7.9148	32.4229	-4.0628
44	0.3308	0.0598	-0.0131	0.0194	0.0173	32.9734	7.9202	33.1804	-4.0400
45	0.3385	0.0597	-0.0161	0.0195	0.0154	33.7543	7.9217	33.9380	-4.0164
46	0.3462	0.0596	-0.0190	0.0196	0.0135	34.5352	7.9194	34.6956	-3.9919
47	0.3538	0.0594	-0.0219	0.0197	0.0115	35.3161	7.9135	35.4532	-3.9667
48	0.3615	0.0592	-0.0246	0.0198	0.0096	36.0969	7.9038	36.2108	-3.9408
49	0.3692	0.0590	-0.0273	0.0199	0.0077	36.8777	7.8906	36.9685	-3.9143
50	0.3769	0.0588	-0.0299	0.0199	0.0058	37.6584	7.8738	37.7262	-3.8872
51	0.3846	0.0586	-0.0324	0.0200	0.0038	38.4390	7.8536	38.4841	-3.8595
52	0.3923	0.0583	-0.0349	0.0200	0.0019	39.2196	7.8300	39.2420	-3.8315
53	0.4000	0.0580	-0.0372	0.0200	0.0000	40.0000	7.8030	40.0000	-3.8030
54	0.4077	0.0577	-0.0396	0.0200	-0.0009	40.7742	7.7731	40.7643	-3.7738
55	0.4154	0.0574	-0.0418	0.0200	-0.0017	41.5483	7.7408	41.5286	-3.7435
56	0.4231	0.0571	-0.0440	0.0200	-0.0026	42.3223	7.7062	42.2931	-3.7121
57	0.4308	0.0567	-0.0462	0.0199	-0.0034	43.0963	7.6692	43.0575	-3.6797
58	0.4385	0.0564	-0.0482	0.0199	-0.0043	43.8703	7.6299	43.8221	-3.6463
59	0.4462	0.0560	-0.0503	0.0199	-0.0051	44.6441	7.5884	44.5867	-3.6120
60	0.4538	0.0556	-0.0522	0.0198	-0.0060	45.4179	7.5446	45.3513	-3.5768
61	0.4615	0.0552	-0.0542	0.0198	-0.0068	46.1916	7.4987	46.1161	-3.5408
62	0.4692	0.0548	-0.0560	0.0197	-0.0077	46.9652	7.4507	46.8809	-3.5040
63	0.4769	0.0543	-0.0579	0.0197	-0.0085	47.7388	7.4006	47.6459	-3.4664
64	0.4846	0.0539	-0.0597	0.0196	-0.0094	48.5122	7.3485	48.4109	-3.4280
65	0.4923	0.0534	-0.0614	0.0195	-0.0103	49.2856	7.2943	49.1760	-3.3890
66	0.5000	0.0529	-0.0631	0.0194	-0.0111	50.0588	7.2381	49.9412	-3.3493
67	0.5077	0.0524	-0.0648	0.0194	-0.0120	50.8320	7.1800	50.7065	-3.3089
68	0.5154	0.0519	-0.0664	0.0193	-0.0128	51.6051	7.1200	51.4719	-3.2679
69	0.5231	0.0514	-0.0680	0.0192	-0.0137	52.3780	7.0581	52.2374	-3.2264
70	0.5308	0.0509	-0.0695	0.0190	-0.0145	53.1509	6.9943	53.0030	-3.1843
71	0.5385	0.0504	-0.0711	0.0189	-0.0154	53.9236	6.9286	53.7687	-3.1416
72	0.5462	0.0498	-0.0725	0.0188	-0.0162	54.6963	6.8611	54.5345	-3.0985
73	0.5538	0.0492	-0.0740	0.0187	-0.0171	55.4688	6.7919	55.3005	-3.0549
74	0.5615	0.0487	-0.0754	0.0186	-0.0179	56.2412	6.7209	56.0665	-3.0108
75	0.5692	0.0481	-0.0768	0.0184	-0.0188	57.0135	6.6481	56.8327	-2.9663
76	0.5769	0.0475	-0.0782	0.0183	-0.0197	57.7856	6.5736	57.5990	-2.9214
77	0.5846	0.0469	-0.0795	0.0181	-0.0205	58.5577	6.4974	58.3654	-2.8761
78	0.5923	0.0463	-0.0809	0.0179	-0.0214	59.3296	6.4196	59.1319	-2.8305
79	0.6000	0.0456	-0.0822	0.0178	-0.0222	60.1014	6.3400	59.8986	-2.7845
80	0.6077	0.0450	-0.0834	0.0176	-0.0231	60.8730	6.2588	60.6654	-2.7381
81	0.6154	0.0444	-0.0847	0.0174	-0.0239	61.6446	6.1760	61.4324	-2.6915
82	0.6231	0.0437	-0.0859	0.0172	-0.0248	62.4160	6.0916	62.1994	-2.6445
83	0.6308	0.0430	-0.0871	0.0170	-0.0256	63.1872	6.0056	62.9666	-2.5973
84	0.6385	0.0424	-0.0883	0.0168	-0.0265	63.9583	5.9180	63.7340	-2.5498
85	0.6462	0.0417	-0.0895	0.0166	-0.0274	64.7293	5.8288	64.5015	-2.5021
86	0.6538	0.0410	-0.0906	0.0164	-0.0282	65.5001	5.7381	65.2691	-2.4541
87	0.6615	0.0403	-0.0918	0.0162	-0.0291	66.2708	5.6459	66.0369	-2.4059
88	0.6692	0.0396	-0.0929	0.0160	-0.0299	67.0414	5.5521	66.8048	-2.3575
89	0.6769	0.0388	-0.0940	0.0157	-0.0308	67.8118	5.4568	67.5728	-2.3089
90	0.6846	0.0381	-0.0951	0.0155	-0.0316	68.5820	5.3600	68.3410	-2.2600
91	0.6923	0.0374	-0.0962	0.0153	-0.0325	69.3521	5.2617	69.1094	-2.2110
92	0.7000	0.0366	-0.0973	0.0150	-0.0333	70.1221	5.1619	69.8779	-2.1619
93	0.7077	0.0359	-0.0984	0.0147	-0.0342	70.8919	5.0606	70.6466	-2.1125
94	0.7154	0.0351	-0.0994	0.0145	-0.0350	71.6615	4.9578	71.4154	-2.0630
95	0.7231	0.0344	-0.1005	0.0142	-0.0359	72.4310	4.8536	72.1844	-2.0134
96	0.7308	0.0336	-0.1015	0.0139	-0.0368	73.2003	4.7479	72.9536	-1.9636
97	0.7385	0.0328	-0.1026	0.0136	-0.0376	73.9694	4.6408	73.7229	-1.9136
98	0.7462	0.0320	-0.1036	0.0133	-0.0385	74.7384	4.5322	74.4924	-1.8636
99	0.7538	0.0312	-0.1046	0.0130	-0.0393	75.5072	4.4222	75.2620	-1.8134
100	0.7615	0.0304	-0.1056	0.0127	-0.0402	76.2758	4.3107	76.0319	-1.7630
101	0.7692	0.0296	-0.1067	0.0124	-0.0410	77.0443	4.1978	76.8018	-1.7125

naca2412_full.txt

102	0.7769	0.0288	-0.1077	0.0121	-0.0419	77.8126	4.0834	77.5720	-1.6619
103	0.7846	0.0279	-0.1087	0.0118	-0.0427	78.5807	3.9676	78.3423	-1.6112
104	0.7923	0.0271	-0.1097	0.0114	-0.0436	79.3487	3.8503	79.1128	-1.5604
105	0.8000	0.0262	-0.1108	0.0111	-0.0444	80.1165	3.7316	79.8835	-1.5094
106	0.8077	0.0254	-0.1118	0.0108	-0.0453	80.8841	3.6115	80.6544	-1.4583
107	0.8154	0.0245	-0.1128	0.0104	-0.0462	81.6515	3.4900	81.4255	-1.4071
108	0.8231	0.0236	-0.1138	0.0101	-0.0470	82.4187	3.3669	82.1967	-1.3558
109	0.8308	0.0228	-0.1149	0.0097	-0.0479	83.1857	3.2425	82.9681	-1.3043
110	0.8385	0.0219	-0.1159	0.0093	-0.0487	83.9526	3.1166	83.7397	-1.2527
111	0.8462	0.0210	-0.1170	0.0089	-0.0496	84.7192	2.9892	84.5115	-1.2009
112	0.8538	0.0201	-0.1180	0.0086	-0.0504	85.4857	2.8604	85.2835	-1.1490
113	0.8615	0.0192	-0.1191	0.0082	-0.0513	86.2520	2.7301	86.0557	-1.0970
114	0.8692	0.0182	-0.1201	0.0078	-0.0521	87.0181	2.5984	86.8281	-1.0448
115	0.8769	0.0173	-0.1212	0.0074	-0.0530	87.7839	2.4652	87.6007	-0.9925
116	0.8846	0.0164	-0.1223	0.0070	-0.0538	88.5496	2.3305	88.3735	-0.9399
117	0.8923	0.0154	-0.1234	0.0065	-0.0547	89.3150	2.1943	89.1465	-0.8873
118	0.9000	0.0145	-0.1245	0.0061	-0.0556	90.0803	2.0566	89.9197	-0.8344
119	0.9077	0.0135	-0.1256	0.0057	-0.0564	90.8453	1.9174	90.6931	-0.7813
120	0.9154	0.0125	-0.1268	0.0052	-0.0573	91.6102	1.7767	91.4667	-0.7281
121	0.9231	0.0116	-0.1279	0.0048	-0.0581	92.3748	1.6345	92.2406	-0.6746
122	0.9308	0.0106	-0.1291	0.0043	-0.0590	93.1392	1.4907	93.0147	-0.6209
123	0.9385	0.0096	-0.1303	0.0039	-0.0598	93.9034	1.3454	93.7889	-0.5670
124	0.9462	0.0086	-0.1314	0.0034	-0.0607	94.6673	1.1985	94.5635	-0.5128
125	0.9538	0.0076	-0.1327	0.0030	-0.0615	95.4310	1.0501	95.3382	-0.4584
126	0.9615	0.0065	-0.1339	0.0025	-0.0624	96.1945	0.9001	96.1132	-0.4037
127	0.9692	0.0055	-0.1351	0.0020	-0.0632	96.9578	0.7484	96.8884	-0.3487
128	0.9769	0.0045	-0.1364	0.0015	-0.0641	97.7208	0.5952	97.6638	-0.2934
129	0.9846	0.0034	-0.1377	0.0010	-0.0650	98.4836	0.4404	98.4395	-0.2379
130	0.9923	0.0023	-0.1390	0.0005	-0.0658	99.2461	0.2839	99.2154	-0.1820
131	1.0000	0.0013	-0.1403	0.0000	-0.0667	100.0084	0.1257	99.9916	-0.1257
I	X/C	YT/C	DYT/X	YC/C	DYC/C	XU/C(%)	YU/C(%)	XL/C(%)	YL/C(%)