

220920 Logistic Regression

Jongrak

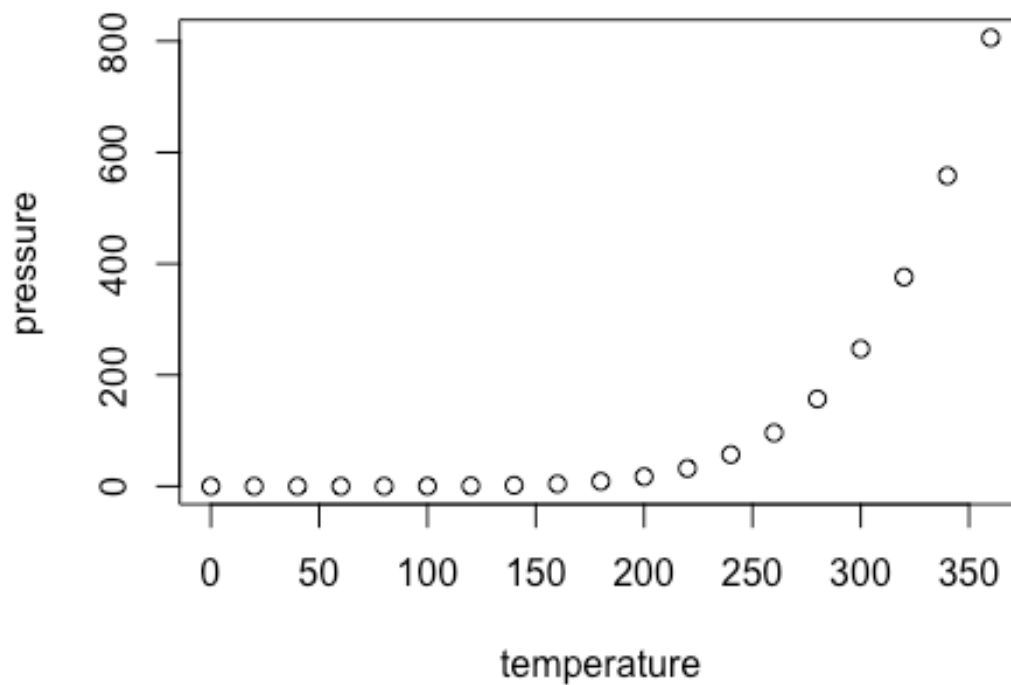
2022-12-31

```
summary(cars)
```

```
##      speed      dist
##  Min.   : 4.0    Min.   :  2.00
## 1st Qu.:12.0    1st Qu.: 26.00
##  Median:15.0    Median : 36.00
##  Mean   :15.4    Mean    : 42.98
## 3rd Qu.:19.0    3rd Qu.: 56.00
##  Max.   :25.0    Max.    :120.00
```

Including Plots

You can also embed plots, for example:



Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.

```
library(ISLR)
```

```
Smarket
```

##	Year	Lag1	Lag2	Lag3	Lag4	Lag5	Volume	Today	Direction
## 1	2001	0.381	-0.192	-2.624	-1.055	5.010	1.19130	0.959	Up
## 2	2001	0.959	0.381	-0.192	-2.624	-1.055	1.29650	1.032	Up
## 3	2001	1.032	0.959	0.381	-0.192	-2.624	1.41120	-0.623	Down
## 4	2001	-0.623	1.032	0.959	0.381	-0.192	1.27600	0.614	Up
## 5	2001	0.614	-0.623	1.032	0.959	0.381	1.20570	0.213	Up
## 6	2001	0.213	0.614	-0.623	1.032	0.959	1.34910	1.392	Up
## 7	2001	1.392	0.213	0.614	-0.623	1.032	1.44500	-0.403	Down
## 8	2001	-0.403	1.392	0.213	0.614	-0.623	1.40780	0.027	Up
## 9	2001	0.027	-0.403	1.392	0.213	0.614	1.16400	1.303	Up
## 10	2001	1.303	0.027	-0.403	1.392	0.213	1.23260	0.287	Up
## 11	2001	0.287	1.303	0.027	-0.403	1.392	1.30900	-0.498	Down
## 12	2001	-0.498	0.287	1.303	0.027	-0.403	1.25800	-0.189	Down
## 13	2001	-0.189	-0.498	0.287	1.303	0.027	1.09800	0.680	Up
## 14	2001	0.680	-0.189	-0.498	0.287	1.303	1.05310	0.701	Up
## 15	2001	0.701	0.680	-0.189	-0.498	0.287	1.14980	-0.562	Down
## 16	2001	-0.562	0.701	0.680	-0.189	-0.498	1.29530	0.546	Up
## 17	2001	0.546	-0.562	0.701	0.680	-0.189	1.11880	-1.747	Down
## 18	2001	-1.747	0.546	-0.562	0.701	0.680	1.04840	0.359	Up
## 19	2001	0.359	-1.747	0.546	-0.562	0.701	1.01300	-0.151	Down
## 20	2001	-0.151	0.359	-1.747	0.546	-0.562	1.05960	-0.841	Down
## 21	2001	-0.841	-0.151	0.359	-1.747	0.546	1.15830	-0.623	Down
## 22	2001	-0.623	-0.841	-0.151	0.359	-1.747	1.10720	-1.334	Down
## 23	2001	-1.334	-0.623	-0.841	-0.151	0.359	1.07550	1.183	Up
## 24	2001	1.183	-1.334	-0.623	-0.841	-0.151	1.03910	-0.865	Down
## 25	2001	-0.865	1.183	-1.334	-0.623	-0.841	1.07520	-0.218	Down
## 26	2001	-0.218	-0.865	1.183	-1.334	-0.623	1.15030	0.812	Up
## 27	2001	0.812	-0.218	-0.865	1.183	-1.334	1.15370	-1.891	Down
## 28	2001	-1.891	0.812	-0.218	-0.865	1.183	1.25720	-1.736	Down
## 29	2001	-1.736	-1.891	0.812	-0.218	-0.865	1.11220	-1.851	Down
## 30	2001	-1.851	-1.736	-1.891	0.812	-0.218	1.20850	-0.195	Down
## 31	2001	-0.195	-1.851	-1.736	-1.891	0.812	1.36590	-0.556	Down
## 32	2001	-0.556	-0.195	-1.851	-1.736	-1.891	1.23130	1.749	Up
## 33	2001	1.749	-0.556	-0.195	-1.851	-1.736	1.13080	-0.766	Down
## 34	2001	-0.766	1.749	-0.556	-0.195	-1.851	1.11410	-1.431	Down
## 35	2001	-1.431	-0.766	1.749	-0.556	-0.195	1.22530	0.104	Up
## 36	2001	0.104	-1.431	-0.766	1.749	-0.556	1.29490	-0.568	Down
## 37	2001	-0.568	0.104	-1.431	-0.766	1.749	1.29400	0.586	Up
## 38	2001	0.586	-0.568	0.104	-1.431	-0.766	0.92920	0.998	Up
## 39	2001	0.998	0.586	-0.568	0.104	-1.431	1.09180	0.645	Up
## 40	2001	0.645	0.998	0.586	-0.568	0.104	1.13220	0.226	Up
## 41	2001	0.226	0.645	0.998	0.586	-0.568	1.11410	-2.476	Down
## 42	2001	-2.476	0.226	0.645	0.998	0.586	1.08590	-4.318	Down

## 43	2001	-4.318	-2.476	0.226	0.645	0.998	1.22900	1.483	Up
## 44	2001	1.483	-4.318	-2.476	0.226	0.645	1.36090	-2.584	Down
## 45	2001	-2.584	1.483	-4.318	-2.476	0.226	1.39740	0.587	Up
## 46	2001	0.587	-2.584	1.483	-4.318	-2.476	1.25950	-1.962	Down
## 47	2001	-1.962	0.587	-2.584	1.483	-4.318	1.54356	1.763	Up
## 48	2001	1.763	-1.962	0.587	-2.584	1.483	1.12620	-2.408	Down
## 49	2001	-2.408	1.763	-1.962	0.587	-2.584	1.23590	-1.792	Down
## 50	2001	-1.792	-2.408	1.763	-1.962	0.587	1.34630	-0.406	Down
## 51	2001	-0.406	-1.792	-2.408	1.763	-1.962	1.72395	1.991	Up
## 52	2001	1.991	-0.406	-1.792	-2.408	1.763	1.36490	1.128	Up
## 53	2001	1.128	1.991	-0.406	-1.792	-2.408	1.11400	2.557	Up
## 54	2001	2.557	1.128	1.991	-0.406	-1.792	1.31420	-2.443	Down
## 55	2001	-2.443	2.557	1.128	1.991	-0.406	1.33340	-0.463	Down
## 56	2001	-0.463	-2.443	2.557	1.128	1.991	1.23450	1.078	Up
## 57	2001	1.078	-0.463	-2.443	2.557	1.128	1.28080	-1.246	Down
## 58	2001	-1.246	1.078	-0.463	-2.443	2.557	1.25490	-3.439	Down
## 59	2001	-3.439	-1.246	1.078	-0.463	-2.443	1.38610	-0.290	Down
## 60	2001	-0.290	-3.439	-1.246	1.078	-0.463	1.42559	4.368	Up
## 61	2001	4.368	-0.290	-3.439	-1.246	1.078	1.36800	-1.998	Down
## 62	2001	-1.998	4.368	-0.290	-3.439	-1.246	1.26680	0.812	Up
## 63	2001	0.812	-1.998	4.368	-0.290	-3.439	1.06280	2.707	Up
## 64	2001	2.707	0.812	-1.998	4.368	-0.290	1.34960	-0.213	Down
## 65	2001	-0.213	2.707	0.812	-1.998	4.368	1.29030	1.510	Up
## 66	2001	1.510	-0.213	2.707	0.812	-1.998	1.10200	-0.323	Down
## 67	2001	-0.323	1.510	-0.213	2.707	0.812	0.91390	1.028	Up
## 68	2001	1.028	-0.323	1.510	-0.213	2.707	1.10960	3.889	Up
## 69	2001	3.889	1.028	-0.323	1.510	-0.213	1.91890	1.254	Up
## 70	2001	1.254	3.889	1.028	-0.323	1.510	1.48680	-0.854	Down
## 71	2001	-0.854	1.254	3.889	1.028	-0.323	1.33870	-1.498	Down
## 72	2001	-1.498	-0.854	1.254	3.889	1.028	1.01260	-1.216	Down
## 73	2001	-1.216	-1.498	-0.854	1.254	3.889	1.21650	1.594	Up
## 74	2001	1.594	-1.216	-1.498	-0.854	1.254	1.20360	0.470	Up
## 75	2001	0.470	1.594	-1.216	-1.498	-0.854	1.34520	1.501	Up
## 76	2001	1.501	0.470	1.594	-1.216	-1.498	1.09130	-0.287	Down
## 77	2001	-0.287	1.501	0.470	1.594	-1.216	1.26680	1.359	Up
## 78	2001	1.359	-0.287	1.501	0.470	1.594	1.18130	0.078	Up
## 79	2001	0.078	1.359	-0.287	1.501	0.470	1.34220	-1.487	Down
## 80	2001	-1.487	0.078	1.359	-0.287	1.501	1.13790	1.444	Up
## 81	2001	1.444	-1.487	0.078	1.359	-0.287	1.08210	-0.245	Down
## 82	2001	-0.245	1.444	-1.487	0.078	1.359	0.94900	-0.183	Down
## 83	2001	-0.183	-0.245	1.444	-1.487	0.078	1.00630	-0.449	Down
## 84	2001	-0.449	-0.183	-0.245	1.444	-1.487	1.13240	-0.029	Down
## 85	2001	-0.029	-0.449	-0.183	-0.245	1.444	1.05670	-0.758	Down
## 86	2001	-0.758	-0.029	-0.449	-0.183	-0.245	0.90620	0.261	Up
## 87	2001	0.261	-0.758	-0.029	-0.449	-0.183	0.85820	0.042	Up
## 88	2001	0.042	0.261	-0.758	-0.029	-0.449	1.07180	2.845	Up
## 89	2001	2.845	0.042	0.261	-0.758	-0.029	1.40530	0.272	Up
## 90	2001	0.272	2.845	0.042	0.261	-0.758	1.35560	0.269	Up
## 91	2001	0.269	0.272	2.845	0.042	0.261	1.13080	1.615	Up
## 92	2001	1.615	0.269	0.272	2.845	0.042	1.17490	-0.263	Down

## 93	2001	-0.263	1.615	0.269	0.272	2.845	1.26040	-1.553	Down
## 94	2001	-1.553	-0.263	1.615	0.269	0.272	1.13480	0.320	Up
## 95	2001	0.320	-1.553	-0.263	1.615	0.269	1.10070	-1.182	Down
## 96	2001	-1.182	0.320	-1.553	-0.263	1.615	0.82810	-0.779	Down
## 97	2001	-0.779	-1.182	0.320	-1.553	-0.263	1.02600	-1.566	Down
## 98	2001	-1.566	-0.779	-1.182	0.320	-1.553	1.15860	0.620	Up
## 99	2001	0.620	-1.566	-0.779	-1.182	0.320	1.22660	0.386	Up
## 100	2001	0.386	0.620	-1.566	-0.779	-1.182	1.01500	0.511	Up
## 101	2001	0.511	0.386	0.620	-1.566	-0.779	0.83650	1.299	Up
## 102	2001	1.299	0.511	0.386	0.620	-1.566	1.11680	-1.055	Down
## 103	2001	-1.055	1.299	0.511	0.386	0.620	1.06190	0.546	Up
## 104	2001	0.546	-1.055	1.299	0.511	0.386	1.08960	-0.940	Down
## 105	2001	-0.940	0.546	-1.055	1.299	0.511	0.72620	-0.836	Down
## 106	2001	-0.836	-0.940	0.546	-1.055	1.299	0.87010	0.116	Up
## 107	2001	0.116	-0.836	-0.940	0.546	-1.055	1.13650	-1.135	Down
## 108	2001	-1.135	0.116	-0.836	-0.940	0.546	1.06360	-1.750	Down
## 109	2001	-1.750	-1.135	0.116	-0.836	-0.940	1.24290	-0.452	Down
## 110	2001	-0.452	-1.750	-1.135	0.116	-0.836	1.63555	-0.488	Down
## 111	2001	-0.488	-0.452	-1.750	-1.135	0.116	1.11160	0.343	Up
## 112	2001	0.343	-0.488	-0.452	-1.750	-1.135	1.18490	0.871	Up
## 113	2001	0.871	0.343	-0.488	-0.452	-1.750	1.35010	1.136	Up
## 114	2001	1.136	0.871	0.343	-0.488	-0.452	1.54682	-0.945	Down
## 115	2001	-0.945	1.136	0.871	0.343	-0.488	1.18920	-0.551	Down
## 116	2001	-0.551	-0.945	1.136	0.871	0.343	1.05010	-0.151	Down
## 117	2001	-0.151	-0.551	-0.945	1.136	0.871	1.19890	-0.468	Down
## 118	2001	-0.468	-0.151	-0.551	-0.945	1.136	1.16210	1.249	Up
## 119	2001	1.249	-0.468	-0.151	-0.551	-0.945	1.32730	-0.148	Down
## 120	2001	-0.148	1.249	-0.468	-0.151	-0.551	1.83236	1.008	Up
## 121	2001	1.008	-0.148	1.249	-0.468	-0.151	1.12830	-0.184	Down
## 122	2001	-0.184	1.008	-0.148	1.249	-0.468	0.62211	-1.232	Down
## 123	2001	-1.232	-0.184	1.008	-0.148	1.249	0.93490	-2.350	Down
## 124	2001	-2.350	-1.232	-0.184	1.008	-0.148	1.05670	0.688	Up
## 125	2001	0.688	-2.350	-1.232	-0.184	1.008	1.04570	-1.440	Down
## 126	2001	-1.440	0.688	-2.350	-1.232	-0.184	1.26380	-0.113	Down
## 127	2001	-0.113	-1.440	0.688	-2.350	-1.232	1.38410	2.369	Up
## 128	2001	2.369	-0.113	-1.440	0.688	-2.350	1.39400	0.624	Up
## 129	2001	0.624	2.369	-0.113	-1.440	0.688	1.12170	-1.088	Down
## 130	2001	-1.088	0.624	2.369	-0.113	-1.440	1.03980	0.997	Up
## 131	2001	0.997	-1.088	0.624	2.369	-0.113	1.23810	-0.554	Down
## 132	2001	-0.554	0.997	-1.088	0.624	2.369	1.31630	0.605	Up
## 133	2001	0.605	-0.554	0.997	-1.088	0.624	1.34350	-0.343	Down
## 134	2001	-0.343	0.605	-0.554	0.997	-1.088	1.17090	-1.637	Down
## 135	2001	-1.637	-0.343	0.605	-0.554	0.997	0.98690	-1.627	Down
## 136	2001	-1.627	-1.637	-0.343	0.605	-0.554	1.19870	1.608	Up
## 137	2001	1.608	-1.627	-1.637	-0.343	0.605	1.28070	1.045	Up
## 138	2001	1.045	1.608	-1.627	-1.637	-0.343	1.21390	0.240	Up
## 139	2001	0.240	1.045	1.608	-1.627	-1.637	1.01530	-0.108	Down
## 140	2001	-0.108	0.240	1.045	1.608	-1.627	0.90910	0.557	Up
## 141	2001	0.557	-0.108	0.240	1.045	1.608	1.12920	0.388	Up
## 142	2001	0.388	0.557	-0.108	0.240	1.045	1.34030	0.396	Up

## 143	2001	0.396	0.388	0.557	-0.108	0.240	1.21830	-0.524	Down
## 144	2001	-0.524	0.396	0.388	0.557	-0.108	0.93990	-1.142	Down
## 145	2001	-1.142	-0.524	0.396	0.388	0.557	0.81170	0.327	Up
## 146	2001	0.327	-1.142	-0.524	0.396	0.388	1.01200	-1.733	Down
## 147	2001	-1.733	0.327	-1.142	-0.524	0.396	1.12460	-0.008	Down
## 148	2001	-0.008	-1.733	0.327	-1.142	-0.524	1.10420	0.569	Up
## 149	2001	0.569	-0.008	-1.733	0.327	-1.142	0.96090	0.095	Up
## 150	2001	0.095	0.569	-0.008	-1.733	0.327	0.83760	-0.383	Down
## 151	2001	-0.383	0.095	0.569	-0.008	-1.733	0.96460	-0.734	Down
## 152	2001	-0.734	-0.383	0.095	0.569	-0.008	1.06560	0.309	Up
## 153	2001	0.309	-0.734	-0.383	0.095	0.569	1.05540	-1.666	Down
## 154	2001	-1.666	0.309	-0.734	-0.383	0.095	0.97430	0.812	Up
## 155	2001	0.812	-1.666	0.309	-0.734	-0.383	0.89710	-1.208	Down
## 156	2001	-1.208	0.812	-1.666	0.309	-0.734	1.04160	0.696	Up
## 157	2001	0.696	-1.208	0.812	-1.666	0.309	1.11080	-0.276	Down
## 158	2001	-0.276	0.696	-1.208	0.812	-1.666	0.98620	1.965	Up
## 159	2001	1.965	-0.276	0.696	-1.208	0.812	1.04360	-0.483	Down
## 160	2001	-0.483	1.965	-0.276	0.696	-1.208	0.84260	-1.501	Down
## 161	2001	-1.501	-0.483	1.965	-0.276	0.696	0.98710	-1.115	Down
## 162	2001	-1.115	-1.501	-0.483	1.965	-0.276	0.96370	-1.700	Down
## 163	2001	-1.700	-1.115	-1.501	-0.483	1.965	1.15700	0.403	Up
## 164	2001	0.403	-1.700	-1.115	-1.501	-0.483	0.92010	-0.056	Down
## 165	2001	-0.056	0.403	-1.700	-1.115	-1.501	1.17830	-0.106	Down
## 166	2001	-0.106	-0.056	0.403	-1.700	-1.115	1.38450	-2.239	Down
## 167	2001	-2.239	-0.106	-0.056	0.403	-1.700	1.35970	-1.864	Down
## 168	2001	-1.864	-2.239	-0.106	-0.056	0.403	1.42430	0.623	Up
## 169	2001	0.623	-1.864	-2.239	-0.106	-0.056	1.27660	-4.922	Down
## 170	2001	-4.922	0.623	-1.864	-2.239	-0.106	2.33083	-0.580	Down
## 171	2001	-0.580	-4.922	0.623	-1.864	-2.239	1.65041	-1.611	Down
## 172	2001	-1.611	-0.580	-4.922	0.623	-1.864	2.12055	-3.106	Down
## 173	2001	-3.106	-1.611	-0.580	-4.922	0.623	2.00480	-1.903	Down
## 174	2001	-1.903	-3.106	-1.611	-0.580	-4.922	2.31730	3.898	Up
## 175	2001	3.898	-1.903	-3.106	-1.611	-0.580	1.74660	0.879	Up
## 176	2001	0.879	3.898	-1.903	-3.106	-1.611	1.61380	-0.517	Down
## 177	2001	-0.517	0.879	3.898	-1.903	-3.106	1.51910	1.149	Up
## 178	2001	1.149	-0.517	0.879	3.898	-1.903	1.46700	2.192	Up
## 179	2001	2.192	1.149	-0.517	0.879	3.898	1.63150	-0.230	Down
## 180	2001	-0.230	2.192	1.149	-0.517	0.879	1.17560	1.231	Up
## 181	2001	1.231	-0.230	2.192	1.149	-0.517	1.28980	1.993	Up
## 182	2001	1.993	1.231	-0.230	2.192	1.149	1.65060	-0.247	Down
## 183	2001	-0.247	1.993	1.231	-0.230	2.192	1.60910	0.164	Up
## 184	2001	0.164	-0.247	1.993	1.231	-0.230	1.30170	-0.834	Down
## 185	2001	-0.834	0.164	-0.247	1.993	1.231	0.97900	-0.536	Down
## 186	2001	-0.536	-0.834	0.164	-0.247	1.993	1.22780	2.294	Up
## 187	2001	2.294	-0.536	-0.834	0.164	-0.247	1.31240	1.521	Up
## 188	2001	1.521	2.294	-0.536	-0.834	0.164	1.70458	-0.527	Down
## 189	2001	-0.527	1.521	2.294	-0.536	-0.834	1.33140	-0.153	Down
## 190	2001	-0.153	-0.527	1.521	2.294	-0.536	1.02470	0.694	Up
## 191	2001	0.694	-0.153	-0.527	1.521	2.294	1.21050	-1.863	Down
## 192	2001	-1.863	0.694	-0.153	-0.527	1.521	1.45220	-0.787	Down

## 193	2001	-0.787	-1.863	0.694	-0.153	-0.527	1.26290	0.456	Up
## 194	2001	0.456	-0.787	-1.863	0.694	-0.153	1.29490	1.530	Up
## 195	2001	1.530	0.456	-0.787	-1.863	0.694	1.10570	-0.470	Down
## 196	2001	-0.470	1.530	0.456	-0.787	-1.863	1.31730	0.039	Up
## 197	2001	0.039	-0.470	1.530	0.456	-0.787	1.33620	1.372	Up
## 198	2001	1.372	0.039	-0.470	1.530	0.456	1.36440	0.411	Up
## 199	2001	0.411	1.372	0.039	-0.470	1.530	1.24450	-2.382	Down
## 200	2001	-2.382	0.411	1.372	0.039	-0.470	1.10610	-1.717	Down
## 201	2001	-1.717	-2.382	0.411	1.372	0.039	1.29740	-0.001	Down
## 202	2001	-0.001	-1.717	-2.382	0.411	1.372	1.35250	2.295	Up
## 203	2001	2.295	-0.001	-1.717	-2.382	0.411	1.31740	0.286	Up
## 204	2001	0.286	2.295	-0.001	-1.717	-2.382	1.12190	1.439	Up
## 205	2001	1.439	0.286	2.295	-0.001	-1.717	1.26770	1.453	Up
## 206	2001	1.453	1.439	0.286	2.295	-0.001	1.35600	-0.273	Down
## 207	2001	-0.273	1.453	1.439	0.286	2.295	1.41130	0.246	Up
## 208	2001	0.246	-0.273	1.453	1.439	0.286	1.51750	0.158	Up
## 209	2001	0.158	0.246	-0.273	1.453	1.439	1.09380	-0.177	Down
## 210	2001	-0.177	0.158	0.246	-0.273	1.453	0.99160	1.856	Up
## 211	2001	1.856	-0.177	0.158	0.246	-0.273	1.37010	0.186	Up
## 212	2001	0.186	1.856	-0.177	0.158	0.246	1.44340	0.090	Up
## 213	2001	0.090	0.186	1.856	-0.177	0.158	1.45450	-0.314	Down
## 214	2001	-0.314	0.090	0.186	1.856	-0.177	1.33740	1.090	Up
## 215	2001	1.090	-0.314	0.090	0.186	1.856	1.31680	-0.730	Down
## 216	2001	-0.730	1.090	-0.314	0.090	0.186	1.33020	-0.493	Down
## 217	2001	-0.493	-0.730	1.090	-0.314	0.090	1.02930	1.171	Up
## 218	2001	1.171	-0.493	-0.730	1.090	-0.314	0.41030	0.615	Up
## 219	2001	0.615	1.171	-0.493	-0.730	1.090	1.12980	-0.684	Down
## 220	2001	-0.684	0.615	1.171	-0.493	-0.730	1.28800	-1.825	Down
## 221	2001	-1.825	-0.684	0.615	1.171	-0.493	1.42370	1.035	Up
## 222	2001	1.035	-1.825	-0.684	0.615	1.171	1.37570	-0.066	Down
## 223	2001	-0.066	1.035	-1.825	-0.684	0.615	1.34360	-0.838	Down
## 224	2001	-0.838	-0.066	1.035	-1.825	-0.684	1.20290	1.319	Up
## 225	2001	1.319	-0.838	-0.066	1.035	-1.825	1.31850	2.232	Up
## 226	2001	2.232	1.319	-0.838	-0.066	1.035	1.76530	-0.278	Down
## 227	2001	-0.278	2.232	1.319	-0.838	-0.066	1.48790	-0.753	Down
## 228	2001	-0.753	-0.278	2.232	1.319	-0.838	1.24820	-1.587	Down
## 229	2001	-1.587	-0.753	-0.278	2.232	1.319	1.21870	-0.278	Down
## 230	2001	-0.278	-1.587	-0.753	-0.278	2.232	1.36720	0.027	Up
## 231	2001	0.027	-0.278	-1.587	-0.753	-0.278	1.44970	-1.556	Down
## 232	2001	-1.556	0.027	-0.278	-1.587	-0.753	1.51150	0.331	Up
## 233	2001	0.331	-1.556	0.027	-0.278	-1.587	1.30680	1.003	Up
## 234	2001	1.003	0.331	-1.556	0.027	-0.278	1.26040	0.755	Up
## 235	2001	0.755	1.003	0.331	-1.556	0.027	1.35400	0.581	Up
## 236	2001	0.581	0.755	1.003	0.331	-1.556	1.48490	-0.838	Down
## 237	2001	-0.838	0.581	0.755	1.003	0.331	1.49050	0.435	Up
## 238	2001	0.435	-0.838	0.581	0.755	1.003	1.69400	-0.021	Down
## 239	2001	-0.021	0.435	-0.838	0.581	0.755	0.43967	0.412	Up
## 240	2001	0.412	-0.021	0.435	-0.838	0.581	0.79110	0.675	Up
## 241	2001	0.675	0.412	-0.021	0.435	-0.838	0.87630	0.336	Up
## 242	2001	0.336	0.675	0.412	-0.021	0.435	0.91740	-1.115	Down

##	243	2002	-1.115	0.336	0.675	0.412	-0.021	0.94360	0.574	Up
##	244	2002	0.574	-1.115	0.336	0.675	0.412	1.17100	0.918	Up
##	245	2002	0.918	0.574	-1.115	0.336	0.675	1.39890	0.621	Up
##	246	2002	0.621	0.918	0.574	-1.115	0.336	1.51300	-0.650	Down
##	247	2002	-0.650	0.621	0.918	0.574	-1.115	1.30830	-0.359	Down
##	248	2002	-0.359	-0.650	0.621	0.918	0.574	1.25880	-0.480	Down
##	249	2002	-0.480	-0.359	-0.650	0.621	0.918	1.45200	0.122	Up
##	250	2002	0.122	-0.480	-0.359	-0.650	0.621	1.29900	-0.947	Down
##	251	2002	-0.947	0.122	-0.480	-0.359	-0.650	1.21190	-0.628	Down
##	252	2002	-0.628	-0.947	0.122	-0.480	-0.359	1.28640	0.683	Up
##	253	2002	0.683	-0.628	-0.947	0.122	-0.480	1.38690	-1.625	Down
##	254	2002	-1.625	0.683	-0.628	-0.947	0.122	1.48250	1.003	Up
##	255	2002	1.003	-1.625	0.683	-0.628	-0.947	1.38010	-0.992	Down
##	256	2002	-0.992	1.003	-1.625	0.683	-0.628	1.33330	-0.733	Down
##	257	2002	-0.733	-0.992	1.003	-1.625	0.683	1.31160	0.792	Up
##	258	2002	0.792	-0.733	-0.992	1.003	-1.625	1.47920	0.352	Up
##	259	2002	0.352	0.792	-0.733	-0.992	1.003	1.55280	0.100	Up
##	260	2002	0.100	0.352	0.792	-0.733	-0.992	1.34510	-0.019	Down
##	261	2002	-0.019	0.100	0.352	0.792	-0.733	1.18680	-2.861	Down
##	262	2002	-2.861	-0.019	0.100	0.352	0.792	1.81200	1.175	Up
##	263	2002	1.175	-2.861	-0.019	0.100	0.352	2.01960	1.493	Up
##	264	2002	1.493	1.175	-2.861	-0.019	0.100	1.55700	-0.708	Down
##	265	2002	-0.708	1.493	1.175	-2.861	-0.019	1.36720	-2.474	Down
##	266	2002	-2.474	-0.708	1.493	1.175	-2.861	1.43760	-0.404	Down
##	267	2002	-0.404	-2.474	-0.708	1.493	1.175	1.77830	-0.597	Down
##	268	2002	-0.597	-0.404	-2.474	-0.708	1.493	1.66580	-0.308	Down
##	269	2002	-0.308	-0.597	-0.404	-2.474	-0.708	1.44160	1.486	Up
##	270	2002	1.486	-0.308	-0.597	-0.404	-2.474	1.37190	1.434	Up
##	271	2002	1.434	1.486	-0.308	-0.597	-0.404	1.15940	-0.399	Down
##	272	2002	-0.399	1.434	1.486	-0.308	-0.597	1.09420	0.994	Up
##	273	2002	0.994	-0.399	1.434	1.486	-0.308	1.21590	-0.181	Down
##	274	2002	-0.181	0.994	-0.399	1.434	1.486	1.27250	-1.102	Down
##	275	2002	-1.102	-0.181	0.994	-0.399	1.434	1.35920	-1.887	Down
##	276	2002	-1.887	-1.102	-0.181	0.994	-0.399	1.18990	1.351	Up
##	277	2002	1.351	-1.887	-1.102	-0.181	0.994	1.43890	-1.551	Down
##	278	2002	-1.551	1.351	-1.887	-1.102	-0.181	1.38160	0.822	Up
##	279	2002	0.822	-1.551	1.351	-1.887	-1.102	1.41100	1.798	Up
##	280	2002	1.798	0.822	-1.551	1.351	-1.887	1.36740	-0.005	Down
##	281	2002	-0.005	1.798	0.822	-1.551	1.351	1.30920	0.046	Up
##	282	2002	0.046	-0.005	1.798	0.822	-1.551	1.39380	-0.285	Down
##	283	2002	-0.285	0.046	-0.005	1.798	0.822	1.39220	2.263	Up
##	284	2002	2.263	-0.285	0.046	-0.005	1.798	1.45650	1.949	Up
##	285	2002	1.949	2.263	-0.285	0.046	-0.005	1.59430	-0.667	Down
##	286	2002	-0.667	1.949	2.263	-0.285	0.046	1.54930	1.451	Up
##	287	2002	1.451	-0.667	1.949	2.263	-0.285	1.54130	-0.450	Down
##	288	2002	-0.450	1.451	-0.667	1.949	2.263	1.51740	0.585	Up
##	289	2002	0.585	-0.450	1.451	-0.667	1.949	1.41200	0.339	Up
##	290	2002	0.339	0.585	-0.450	1.451	-0.667	1.21020	-0.229	Down
##	291	2002	-0.229	0.339	0.585	-0.450	1.451	1.30440	-0.986	Down
##	292	2002	-0.986	-0.229	0.339	0.585	-0.450	1.35400	-0.091	Down

## 293	2002	-0.091	-0.986	-0.229	0.339	0.585	1.20880	1.138	Up
## 294	2002	1.138	-0.091	-0.986	-0.229	0.339	1.49390	-0.052	Down
## 295	2002	-0.052	1.138	-0.091	-0.986	-0.229	1.16950	0.407	Up
## 296	2002	0.407	-0.052	1.138	-0.091	-0.986	1.25500	-1.576	Down
## 297	2002	-1.576	0.407	-0.052	1.138	-0.091	1.30490	0.151	Up
## 298	2002	0.151	-1.576	0.407	-0.052	1.138	1.33920	-0.424	Down
## 299	2002	-0.424	0.151	-1.576	0.407	-0.052	1.24330	-1.465	Down
## 300	2002	-1.465	-0.424	0.151	-1.576	0.407	1.05790	0.585	Up
## 301	2002	0.585	-1.465	-0.424	0.151	-1.576	1.22360	0.535	Up
## 302	2002	0.535	0.585	-1.465	-0.424	0.151	1.18010	0.246	Up
## 303	2002	0.246	0.535	0.585	-1.465	-0.424	1.14760	-0.074	Down
## 304	2002	-0.074	0.246	0.535	0.585	-1.465	1.05090	-0.853	Down
## 305	2002	-0.853	-0.074	0.246	0.535	0.585	1.17670	-0.999	Down
## 306	2002	-0.999	-0.853	-0.074	0.246	0.535	1.21970	0.084	Up
## 307	2002	0.084	-0.999	-0.853	-0.074	0.246	1.28380	-0.321	Down
## 308	2002	-0.321	0.084	-0.999	-0.853	-0.074	1.11020	0.228	Up
## 309	2002	0.228	-0.321	0.084	-0.999	-0.853	1.09530	-0.666	Down
## 310	2002	-0.666	0.228	-0.321	0.084	-0.999	1.23540	1.133	Up
## 311	2002	1.133	-0.666	0.228	-0.321	0.084	1.44790	-2.369	Down
## 312	2002	-2.369	1.133	-0.666	0.228	-0.321	1.50560	0.663	Up
## 313	2002	0.663	-2.369	1.133	-0.666	0.228	1.28210	-0.761	Down
## 314	2002	-0.761	0.663	-2.369	1.133	-0.666	1.12040	2.342	Up
## 315	2002	2.342	-0.761	0.663	-2.369	1.133	1.34130	-0.204	Down
## 316	2002	-0.204	2.342	-0.761	0.663	-2.369	1.37690	-0.142	Down
## 317	2002	-0.142	-0.204	2.342	-0.761	0.663	1.35930	0.062	Up
## 318	2002	0.062	-0.142	-0.204	2.342	-0.761	1.18500	-1.541	Down
## 319	2002	-1.541	0.062	-0.142	-0.204	2.342	1.18180	-0.620	Down
## 320	2002	-0.620	-1.541	0.062	-0.142	-0.204	1.38850	-0.710	Down
## 321	2002	-0.710	-0.620	-1.541	0.062	-0.142	1.37320	-0.152	Down
## 322	2002	-0.152	-0.710	-0.620	-1.541	0.062	1.51740	-1.389	Down
## 323	2002	-1.389	-0.152	-0.710	-0.620	-1.541	1.37420	-1.010	Down
## 324	2002	-1.010	-1.389	-0.152	-0.710	-0.620	1.31470	1.077	Up
## 325	2002	1.077	-1.010	-1.389	-0.152	-0.710	1.62860	0.886	Up
## 326	2002	0.886	1.077	-1.010	-1.389	-0.152	1.45140	-0.175	Down
## 327	2002	-0.175	0.886	1.077	-1.010	-1.389	1.36400	-1.026	Down
## 328	2002	-1.026	-0.175	0.886	1.077	-1.010	1.28450	-1.934	Down
## 329	2002	-1.934	-1.026	-0.175	0.886	1.077	1.12260	-0.302	Down
## 330	2002	-0.302	-1.934	-1.026	-0.175	0.886	1.35470	3.750	Up
## 331	2002	3.750	-0.302	-1.934	-1.026	-0.175	1.50200	-1.455	Down
## 332	2002	-1.455	3.750	-0.302	-1.934	-1.026	1.15300	-1.679	Down
## 333	2002	-1.679	-1.455	3.750	-0.302	-1.934	1.17190	1.855	Up
## 334	2002	1.855	-1.679	-1.455	3.750	-0.302	1.08860	2.114	Up
## 335	2002	2.114	1.855	-1.679	-1.455	3.750	1.41450	-0.566	Down
## 336	2002	-0.566	2.114	1.855	-1.679	-1.455	1.42020	0.656	Up
## 337	2002	0.656	-0.566	2.114	1.855	-1.679	1.25660	0.761	Up
## 338	2002	0.761	0.656	-0.566	2.114	1.855	1.27440	-1.329	Down
## 339	2002	-1.329	0.761	0.656	-0.566	2.114	0.98980	-1.099	Down
## 340	2002	-1.099	-1.329	0.761	0.656	-0.566	1.20050	0.569	Up
## 341	2002	0.569	-1.099	-1.329	0.761	0.656	1.13630	1.018	Up
## 342	2002	1.018	0.569	-1.099	-1.329	0.761	1.19290	-1.209	Down

## 343	2002	-1.209	1.018	0.569	-1.099	-1.329	0.88540	-0.855	Down
## 344	2002	-0.855	-1.209	1.018	0.569	-1.099	0.99650	-0.641	Down
## 345	2002	-0.641	-0.855	-1.209	1.018	0.569	1.08180	-0.281	Down
## 346	2002	-0.281	-0.641	-0.855	-1.209	1.018	1.28660	0.233	Up
## 347	2002	0.233	-0.281	-0.641	-0.855	-1.209	1.27730	-2.480	Down
## 348	2002	-2.480	0.233	-0.281	-0.641	-0.855	1.32430	0.001	Up
## 349	2002	0.001	-2.480	0.233	-0.281	-0.641	1.46660	0.885	Up
## 350	2002	0.885	0.001	-2.480	0.233	-0.281	1.30010	-1.976	Down
## 351	2002	-1.976	0.885	0.001	-2.480	0.233	1.60150	-0.157	Down
## 352	2002	-0.157	-1.976	0.885	0.001	-2.480	1.34130	0.312	Up
## 353	2002	0.312	-0.157	-1.976	0.885	0.001	1.22620	-1.663	Down
## 354	2002	-1.663	0.312	-0.157	-1.976	0.885	1.21240	0.657	Up
## 355	2002	0.657	-1.663	0.312	-0.157	-1.976	1.79572	-1.049	Down
## 356	2002	-1.049	0.657	-1.663	0.312	-0.157	1.40550	-0.227	Down
## 357	2002	-0.227	-1.049	0.657	-1.663	0.312	1.54900	2.869	Up
## 358	2002	2.869	-0.227	-1.049	0.657	-1.663	1.23660	0.094	Up
## 359	2002	0.094	2.869	-0.227	-1.049	0.657	1.19310	-1.654	Down
## 360	2002	-1.654	0.094	2.869	-0.227	-1.049	1.33610	-1.343	Down
## 361	2002	-1.343	-1.654	0.094	2.869	-0.227	1.38970	-1.704	Down
## 362	2002	-1.704	-1.343	-1.654	0.094	2.869	1.49720	0.362	Up
## 363	2002	0.362	-1.704	-1.343	-1.654	0.094	1.55260	-1.670	Down
## 364	2002	-1.670	0.362	-1.704	-1.343	-1.654	1.51370	-0.267	Down
## 365	2002	-0.267	-1.670	0.362	-1.704	-1.343	2.01429	1.758	Up
## 366	2002	1.758	-0.267	-1.670	0.362	-1.704	1.90860	-0.083	Down
## 367	2002	-0.083	1.758	-0.267	-1.670	0.362	2.11700	-2.139	Down
## 368	2002	-2.139	-0.083	1.758	-0.267	-1.670	1.42550	-2.123	Down
## 369	2002	-2.123	-2.139	-0.083	1.758	-0.267	1.82300	0.622	Up
## 370	2002	0.622	-2.123	-2.139	-0.083	1.758	1.52780	3.673	Up
## 371	2002	3.673	0.622	-2.123	-2.139	-0.083	0.69940	-1.218	Down
## 372	2002	-1.218	3.673	0.622	-2.123	-2.139	1.18440	-2.472	Down
## 373	2002	-2.472	-1.218	3.673	0.622	-2.123	1.34890	-3.396	Down
## 374	2002	-3.396	-2.472	-1.218	3.673	0.622	1.81690	0.750	Up
## 375	2002	0.750	-3.396	-2.472	-1.218	3.673	2.08048	-0.645	Down
## 376	2002	-0.645	0.750	-3.396	-2.472	-1.218	1.60740	-0.376	Down
## 377	2002	-0.376	-0.645	0.750	-3.396	-2.472	2.57480	-1.851	Down
## 378	2002	-1.851	-0.376	-0.645	0.750	-3.396	1.84370	0.566	Up
## 379	2002	0.566	-1.851	-0.376	-0.645	0.750	2.56650	-2.702	Down
## 380	2002	-2.702	0.566	-1.851	-0.376	-0.645	1.73630	-3.835	Down
## 381	2002	-3.835	-2.702	0.566	-1.851	-0.376	2.65410	-3.291	Down
## 382	2002	-3.291	-3.835	-2.702	0.566	-1.851	2.24806	-2.702	Down
## 383	2002	-2.702	-3.291	-3.835	-2.702	0.566	2.44102	5.733	Up
## 384	2002	5.733	-2.702	-3.291	-3.835	-2.702	2.77556	-0.563	Down
## 385	2002	-0.563	5.733	-2.702	-3.291	-3.835	2.42470	1.688	Up
## 386	2002	1.688	-0.563	5.733	-2.702	-3.291	1.79610	5.408	Up
## 387	2002	5.408	1.688	-0.563	5.733	-2.702	1.77865	0.425	Up
## 388	2002	0.425	5.408	1.688	-0.563	5.733	1.82609	0.979	Up
## 389	2002	0.979	0.425	5.408	1.688	-0.563	2.04936	-2.957	Down
## 390	2002	-2.957	0.979	0.425	5.408	1.688	1.67220	-2.308	Down
## 391	2002	-2.308	-2.957	0.979	0.425	5.408	1.53810	-3.430	Down
## 392	2002	-3.430	-2.308	-2.957	0.979	0.425	1.42550	2.992	Up

## 393	2002	2.992	-3.430	-2.308	-2.957	0.979	1.51410	2.001	Up
## 394	2002	2.001	2.992	-3.430	-2.308	-2.957	1.49040	3.272	Up
## 395	2002	3.272	2.001	2.992	-3.430	-2.308	1.64670	0.351	Up
## 396	2002	0.351	3.272	2.001	2.992	-3.430	1.29490	-0.533	Down
## 397	2002	-0.533	0.351	3.272	2.001	2.992	1.03650	-2.168	Down
## 398	2002	-2.168	-0.533	0.351	3.272	2.001	1.29770	4.005	Up
## 399	2002	4.005	-2.168	-0.533	0.351	3.272	1.53380	1.156	Up
## 400	2002	1.156	4.005	-2.168	-0.533	0.351	1.50510	-0.159	Down
## 401	2002	-0.159	1.156	4.005	-2.168	-0.533	1.26530	2.361	Up
## 402	2002	2.361	-0.159	1.156	4.005	-2.168	1.29980	-1.396	Down
## 403	2002	-1.396	2.361	-0.159	1.156	4.005	1.30850	1.273	Up
## 404	2002	1.273	-1.396	2.361	-0.159	1.156	1.35310	1.405	Up
## 405	2002	1.405	1.273	-1.396	2.361	-0.159	1.37300	-2.269	Down
## 406	2002	-2.269	1.405	1.273	-1.396	2.361	1.07150	0.754	Up
## 407	2002	0.754	-2.269	1.405	1.273	-1.396	1.01690	-1.385	Down
## 408	2002	-1.385	0.754	-2.269	1.405	1.273	1.30770	-1.813	Down
## 409	2002	-1.813	-1.385	0.754	-2.269	1.405	1.14660	-0.008	Down
## 410	2002	-0.008	-1.813	-1.385	0.754	-2.269	1.27110	-0.188	Down
## 411	2002	-0.188	-0.008	-1.813	-1.385	0.754	0.92990	-4.154	Down
## 412	2002	-4.154	-0.188	-0.008	-1.813	-1.385	1.28980	1.752	Up
## 413	2002	1.752	-4.154	-0.188	-0.008	-1.813	1.37210	-1.595	Down
## 414	2002	-1.595	1.752	-4.154	-0.188	-0.008	1.40130	1.680	Up
## 415	2002	1.680	-1.595	1.752	-4.154	-0.188	1.18450	1.011	Up
## 416	2002	1.011	1.680	-1.595	1.752	-4.154	1.13060	0.733	Up
## 417	2002	0.733	1.011	1.680	-1.595	1.752	1.18640	-0.014	Down
## 418	2002	-0.014	0.733	1.011	1.680	-1.595	0.84660	-2.478	Down
## 419	2002	-2.478	-0.014	0.733	1.011	1.680	1.19160	0.327	Up
## 420	2002	0.327	-2.478	-0.014	0.733	1.011	1.27100	0.145	Up
## 421	2002	0.145	0.327	-2.478	-0.014	0.733	1.00140	-1.973	Down
## 422	2002	-1.973	0.145	0.327	-2.478	-0.014	1.44860	-0.465	Down
## 423	2002	-0.465	-1.973	0.145	0.327	-2.478	1.50100	-3.006	Down
## 424	2002	-3.006	-0.465	-1.973	0.145	0.327	1.52400	0.245	Up
## 425	2002	0.245	-3.006	-0.465	-1.973	0.145	1.79280	-1.383	Down
## 426	2002	-1.383	0.245	-3.006	-0.465	-1.973	1.38110	-1.728	Down
## 427	2002	-1.728	-1.383	0.245	-3.006	-0.465	1.67024	2.486	Up
## 428	2002	2.486	-1.728	-1.383	0.245	-3.006	1.65150	1.821	Up
## 429	2002	1.821	2.486	-1.728	-1.383	0.245	1.65000	-3.226	Down
## 430	2002	-3.226	1.821	2.486	-1.728	-1.383	1.50730	-1.461	Down
## 431	2002	-1.461	-3.226	1.821	2.486	-1.728	1.72187	4.002	Up
## 432	2002	4.002	-1.461	-3.226	1.821	2.486	1.78090	-2.359	Down
## 433	2002	-2.359	4.002	-1.461	-3.226	1.821	1.66890	-1.082	Down
## 434	2002	-1.082	-2.359	4.002	-1.461	-3.226	1.67450	-2.243	Down
## 435	2002	-2.243	-1.082	-2.359	4.002	-1.461	1.83593	-1.911	Down
## 436	2002	-1.911	-2.243	-1.082	-2.359	4.002	1.57650	1.690	Up
## 437	2002	1.690	-1.911	-2.243	-1.082	-2.359	1.93843	-2.729	Down
## 438	2002	-2.729	1.690	-1.911	-2.243	-1.082	1.88503	3.497	Up
## 439	2002	3.497	-2.729	1.690	-1.911	-2.243	2.09023	3.906	Up
## 440	2002	3.906	3.497	-2.729	1.690	-1.911	1.85413	0.733	Up
## 441	2002	0.733	3.906	3.497	-2.729	1.690	1.20030	4.734	Up
## 442	2002	4.734	0.733	3.906	3.497	-2.729	1.95600	-2.411	Down

## 443	2002	-2.411	4.734	0.733	3.906	3.497	1.58500	2.230	Up
## 444	2002	2.230	-2.411	4.734	0.733	3.906	1.78039	0.590	Up
## 445	2002	0.590	2.230	-2.411	4.734	0.733	1.42310	1.733	Up
## 446	2002	1.733	0.590	2.230	-2.411	4.734	1.44700	-1.063	Down
## 447	2002	-1.063	1.733	0.590	2.230	-2.411	1.54920	0.672	Up
## 448	2002	0.672	-1.063	1.733	0.590	2.230	1.59390	-1.522	Down
## 449	2002	-1.522	0.672	-1.063	1.733	0.590	1.70057	1.717	Up
## 450	2002	1.717	-1.522	0.672	-1.063	1.733	1.34040	-0.827	Down
## 451	2002	-0.827	1.717	-1.522	0.672	-1.063	1.38260	-0.908	Down
## 452	2002	-0.908	-0.827	1.717	-1.522	0.672	1.52970	0.970	Up
## 453	2002	0.970	-0.908	-0.827	1.717	-1.522	1.42230	-0.556	Down
## 454	2002	-0.556	0.970	-0.908	-0.827	1.717	1.64130	1.716	Up
## 455	2002	1.716	-0.556	0.970	-0.908	-0.827	1.45040	0.820	Up
## 456	2002	0.820	1.716	-0.556	0.970	-0.908	1.64590	0.775	Up
## 457	2002	0.775	0.820	1.716	-0.556	0.970	1.35410	0.914	Up
## 458	2002	0.914	0.775	0.820	1.716	-0.556	1.67400	-2.285	Down
## 459	2002	-2.285	0.914	0.775	0.820	1.716	1.46690	-0.876	Down
## 460	2002	-0.876	-2.285	0.914	0.775	0.820	1.44650	-2.073	Down
## 461	2002	-2.073	-0.876	-2.285	0.914	0.775	1.11300	0.772	Up
## 462	2002	0.772	-2.073	-0.876	-2.285	0.914	1.37710	-0.048	Down
## 463	2002	-0.048	0.772	-2.073	-0.876	-2.285	1.46340	2.463	Up
## 464	2002	2.463	-0.048	0.772	-2.073	-0.876	1.51900	0.615	Up
## 465	2002	0.615	2.463	-0.048	0.772	-2.073	1.40010	-1.041	Down
## 466	2002	-1.041	0.615	2.463	-0.048	0.772	1.28260	-0.402	Down
## 467	2002	-0.402	-1.041	0.615	2.463	-0.048	1.33740	1.941	Up
## 468	2002	1.941	-0.402	-1.041	0.615	2.463	1.51730	2.145	Up
## 469	2002	2.145	1.941	-0.402	-1.041	0.615	2.41510	-0.344	Down
## 470	2002	-0.344	2.145	1.941	-0.402	-1.041	1.62680	0.249	Up
## 471	2002	0.249	-0.344	2.145	1.941	-0.402	1.57400	-2.097	Down
## 472	2002	-2.097	0.249	-0.344	2.145	1.941	1.54360	2.799	Up
## 473	2002	2.799	-2.097	0.249	-0.344	2.145	1.35030	-0.273	Down
## 474	2002	-0.273	2.799	-2.097	0.249	-0.344	0.64346	-0.190	Down
## 475	2002	-0.190	-0.273	2.799	-2.097	0.249	1.61200	-1.475	Down
## 476	2002	-1.475	-0.190	-0.273	2.799	-2.097	1.48840	-0.344	Down
## 477	2002	-0.344	-1.475	-0.190	-0.273	2.799	1.58890	-1.202	Down
## 478	2002	-1.202	-0.344	-1.475	-0.190	-0.273	1.25020	0.627	Up
## 479	2002	0.627	-1.202	-0.344	-1.475	-0.190	1.24110	-2.218	Down
## 480	2002	-2.218	0.627	-1.202	-0.344	-1.475	1.32080	1.396	Up
## 481	2002	1.396	-2.218	0.627	-1.202	-0.344	1.28660	0.056	Up
## 482	2002	0.056	1.396	-2.218	0.627	-1.202	1.28510	-0.373	Down
## 483	2002	-0.373	0.056	1.396	-2.218	0.627	1.25530	-1.342	Down
## 484	2002	-1.342	-0.373	0.056	1.396	-2.218	1.33080	2.352	Up
## 485	2002	2.352	-1.342	-0.373	0.056	1.396	1.27160	-0.814	Down
## 486	2002	-0.814	2.352	-1.342	-0.373	0.056	1.25180	-1.315	Down
## 487	2002	-1.315	-0.814	2.352	-1.342	-0.373	1.44620	-0.771	Down
## 488	2002	-0.771	-1.315	-0.814	2.352	-1.342	1.38590	1.302	Up
## 489	2002	1.302	-0.771	-1.315	-0.814	2.352	1.78273	0.181	Up
## 490	2002	0.181	1.302	-0.771	-1.315	-0.814	1.11210	-0.547	Down
## 491	2002	-0.547	0.181	1.302	-0.771	-1.315	0.45831	-0.315	Down
## 492	2002	-0.315	-0.547	0.181	1.302	-0.771	0.72110	-1.603	Down

## 493	2002	-1.603	-0.315	-0.547	0.181	1.302	0.75840	0.456	Up
## 494	2002	0.456	-1.603	-0.315	-0.547	0.181	1.05780	0.049	Up
## 495	2003	0.049	0.456	-1.603	-0.315	-0.547	1.08850	3.320	Up
## 496	2003	3.320	0.049	0.456	-1.603	-0.315	1.22920	-0.048	Down
## 497	2003	-0.048	3.320	0.049	0.456	-1.603	1.13080	2.247	Up
## 498	2003	2.247	-0.048	3.320	0.049	0.456	1.43590	-0.654	Down
## 499	2003	-0.654	2.247	-0.048	3.320	0.049	1.54520	-1.409	Down
## 500	2003	-1.409	-0.654	2.247	-0.048	3.320	1.46760	1.939	Up
## 501	2003	1.939	-1.409	-0.654	2.247	-0.048	1.56030	0.000	Up
## 502	2003	0.000	1.939	-1.409	-0.654	2.247	1.48540	-0.141	Down
## 503	2003	-0.141	0.000	1.939	-1.409	-0.654	1.39630	0.583	Up
## 504	2003	0.583	-0.141	0.000	1.939	-1.409	1.37940	-1.443	Down
## 505	2003	-1.443	0.583	-0.141	0.000	1.939	1.43210	-0.394	Down
## 506	2003	-0.394	-1.443	0.583	-0.141	0.000	1.53460	-1.402	Down
## 507	2003	-1.402	-0.394	-1.443	0.583	-0.141	1.35820	-1.570	Down
## 508	2003	-1.570	-1.402	-0.394	-1.443	0.583	1.33520	-1.043	Down
## 509	2003	-1.043	-1.570	-1.402	-0.394	-1.443	1.56080	1.022	Up
## 510	2003	1.022	-1.043	-1.570	-1.402	-0.394	1.74455	-2.923	Down
## 511	2003	-2.923	1.022	-1.043	-1.570	-1.402	1.57480	-1.616	Down
## 512	2003	-1.616	-2.923	1.022	-1.043	-1.570	1.43590	1.305	Up
## 513	2003	1.305	-1.616	-2.923	1.022	-1.043	1.45910	0.678	Up
## 514	2003	0.678	1.305	-1.616	-2.923	1.022	1.59540	-2.285	Down
## 515	2003	-2.285	0.678	1.305	-1.616	-2.923	1.51030	1.313	Up
## 516	2003	1.313	-2.285	0.678	1.305	-1.616	1.57853	0.540	Up
## 517	2003	0.540	1.313	-2.285	0.678	1.305	1.25850	-1.409	Down
## 518	2003	-1.409	0.540	1.313	-2.285	0.678	1.45160	-0.544	Down
## 519	2003	-0.544	-1.409	0.540	1.313	-2.285	1.45080	-0.645	Down
## 520	2003	-0.645	-0.544	-1.409	0.540	1.313	1.43090	-1.009	Down
## 521	2003	-1.009	-0.645	-0.544	-1.409	0.540	1.27680	0.757	Up
## 522	2003	0.757	-1.009	-0.645	-0.544	-1.409	1.23820	-0.810	Down
## 523	2003	-0.810	0.757	-1.009	-0.645	-0.544	1.30700	-1.269	Down
## 524	2003	-1.269	-0.810	0.757	-1.009	-0.645	1.26050	-0.160	Down
## 525	2003	-0.160	-1.269	-0.810	0.757	-1.009	1.48930	2.143	Up
## 526	2003	2.143	-0.160	-1.269	-0.810	0.757	1.40460	1.950	Up
## 527	2003	1.950	2.143	-0.160	-1.269	-0.810	1.25080	-0.710	Down
## 528	2003	-0.710	1.950	2.143	-0.160	-1.269	1.07560	-0.950	Down
## 529	2003	-0.950	-0.710	1.950	2.143	-0.160	1.19410	1.322	Up
## 530	2003	1.322	-0.950	-0.710	1.950	2.143	1.39820	-1.838	Down
## 531	2003	-1.838	1.322	-0.950	-0.710	1.950	1.22920	0.719	Up
## 532	2003	0.719	-1.838	1.322	-0.950	-0.710	1.48370	-1.314	Down
## 533	2003	-1.314	0.719	-1.838	1.322	-0.950	1.37440	1.176	Up
## 534	2003	1.176	-1.314	0.719	-1.838	1.322	1.28780	0.462	Up
## 535	2003	0.462	1.176	-1.314	0.719	-1.838	1.37330	-0.754	Down
## 536	2003	-0.754	0.462	1.176	-1.314	0.719	1.20890	-1.536	Down
## 537	2003	-1.536	-0.754	0.462	1.176	-1.314	1.25660	0.956	Up
## 538	2003	0.956	-1.536	-0.754	0.462	1.176	1.33270	-0.934	Down
## 539	2003	-0.934	0.956	-1.536	-0.754	0.462	1.29920	0.826	Up
## 540	2003	0.826	-0.934	0.956	-1.536	-0.754	1.36850	-2.583	Down
## 541	2003	-2.583	0.826	-0.934	0.956	-1.536	1.25500	-0.836	Down
## 542	2003	-0.836	-2.583	0.826	-0.934	0.956	1.42770	0.432	Up

## 543	2003	0.432	-0.836	-2.583	0.826	-0.934	1.62000	3.446	Up
## 544	2003	3.446	0.432	-0.836	-2.583	0.826	1.81630	0.165	Up
## 545	2003	0.165	3.446	0.432	-0.836	-2.583	1.54190	3.543	Up
## 546	2003	3.543	0.165	3.446	0.432	-0.836	1.70042	0.424	Up
## 547	2003	0.424	3.543	0.165	3.446	0.432	1.55510	0.874	Up
## 548	2003	0.874	0.424	3.543	0.165	3.446	1.47340	0.189	Up
## 549	2003	0.189	0.874	0.424	3.543	0.165	1.43910	2.298	Up
## 550	2003	2.298	0.189	0.874	0.424	3.543	1.88371	-3.523	Down
## 551	2003	-3.523	2.298	0.189	0.874	0.424	1.29300	1.216	Up
## 552	2003	1.216	-3.523	2.298	0.189	0.874	1.33340	-0.548	Down
## 553	2003	-0.548	1.216	-3.523	2.298	0.189	1.31970	-0.164	Down
## 554	2003	-0.164	-0.548	1.216	-3.523	2.298	1.23290	-0.578	Down
## 555	2003	-0.578	-0.164	-0.548	1.216	-3.523	1.22700	-1.774	Down
## 556	2003	-1.774	-0.578	-0.164	-0.548	1.216	1.49550	1.214	Up
## 557	2003	1.214	-1.774	-0.578	-0.164	-0.548	1.46160	2.612	Up
## 558	2003	2.612	1.214	-1.774	-0.578	-0.164	1.58980	-0.505	Down
## 559	2003	-0.505	2.612	1.214	-1.774	-0.578	1.33950	0.274	Up
## 560	2003	0.274	-0.505	2.612	1.214	-1.774	1.24120	0.123	Up
## 561	2003	0.123	0.274	-0.505	2.612	1.214	1.49400	-0.186	Down
## 562	2003	-0.186	0.123	0.274	-0.505	2.612	1.23540	-1.400	Down
## 563	2003	-1.400	-0.186	0.123	0.274	-0.505	1.29370	0.646	Up
## 564	2003	0.646	-1.400	-0.186	0.123	0.274	1.27530	-0.376	Down
## 565	2003	-0.376	0.646	-1.400	-0.186	0.123	1.14160	1.950	Up
## 566	2003	1.950	-0.376	0.646	-1.400	-0.186	1.13100	0.630	Up
## 567	2003	0.630	1.950	-0.376	0.646	-1.400	1.46020	-1.224	Down
## 568	2003	-1.224	0.630	1.950	-0.376	0.646	1.58760	1.554	Up
## 569	2003	1.554	-1.224	0.630	1.950	-0.376	1.43060	-0.176	Down
## 570	2003	-0.176	1.554	-1.224	0.630	1.950	1.11870	2.170	Up
## 571	2003	2.170	-0.176	1.554	-1.224	0.630	1.63120	0.839	Up
## 572	2003	0.839	2.170	-0.176	1.554	-1.224	1.66720	-0.826	Down
## 573	2003	-0.826	0.839	2.170	-0.176	1.554	1.64810	-1.385	Down
## 574	2003	-1.385	-0.826	0.839	2.170	-0.176	1.33580	1.783	Up
## 575	2003	1.783	-1.385	-0.826	0.839	2.170	1.27300	0.328	Up
## 576	2003	0.328	1.783	-1.385	-0.826	0.839	1.52560	-0.100	Down
## 577	2003	-0.100	0.328	1.783	-1.385	-0.826	1.78851	-0.068	Down
## 578	2003	-0.068	-0.100	0.328	1.783	-1.385	1.39750	1.504	Up
## 579	2003	1.504	-0.068	-0.100	0.328	1.783	1.55430	-0.380	Down
## 580	2003	-0.380	1.504	-0.068	-0.100	0.328	1.44630	0.846	Up
## 581	2003	0.846	-0.380	1.504	-0.068	-0.100	1.64960	-0.510	Down
## 582	2003	-0.510	0.846	-0.380	1.504	-0.068	1.53190	-1.006	Down
## 583	2003	-1.006	-0.510	0.846	-0.380	1.504	1.37960	1.428	Up
## 584	2003	1.428	-1.006	-0.510	0.846	-0.380	1.32610	1.253	Up
## 585	2003	1.253	1.428	-1.006	-0.510	0.846	1.37880	-0.297	Down
## 586	2003	-0.297	1.253	1.428	-1.006	-0.510	1.41810	-0.320	Down
## 587	2003	-0.320	-0.297	1.253	1.428	-1.006	1.40180	0.787	Up
## 588	2003	0.787	-0.320	-0.297	1.253	1.428	1.50870	-0.250	Down
## 589	2003	-0.250	0.787	-0.320	-0.297	1.253	1.50550	-2.492	Down
## 590	2003	-2.492	-0.250	0.787	-0.320	-0.297	1.37570	-0.113	Down
## 591	2003	-0.113	-2.492	-0.250	0.787	-0.320	1.50530	0.401	Up
## 592	2003	0.401	-0.113	-2.492	-0.250	0.787	1.45780	0.915	Up

## 593	2003	0.915	0.401	-0.113	-2.492	-0.250	1.44850	0.145	Up
## 594	2003	0.145	0.915	0.401	-0.113	-2.492	1.20100	1.957	Up
## 595	2003	1.957	0.145	0.915	0.401	-0.113	1.53200	0.183	Up
## 596	2003	0.183	1.957	0.145	0.915	0.401	1.55900	-0.376	Down
## 597	2003	-0.376	0.183	1.957	0.145	0.915	1.68580	1.469	Up
## 598	2003	1.469	-0.376	0.183	1.957	0.145	1.68880	0.354	Up
## 599	2003	0.354	1.469	-0.376	0.183	1.957	1.66250	0.472	Up
## 600	2003	0.472	0.354	1.469	-0.376	0.183	1.45020	1.511	Up
## 601	2003	1.511	0.472	0.354	1.469	-0.376	1.61870	0.395	Up
## 602	2003	0.395	1.511	0.472	0.354	1.469	1.69310	-0.240	Down
## 603	2003	-0.240	0.395	1.511	0.472	0.354	1.83720	-1.198	Down
## 604	2003	-1.198	-0.240	0.395	1.511	0.472	1.30700	0.913	Up
## 605	2003	0.913	-1.198	-0.240	0.395	1.511	1.27540	1.283	Up
## 606	2003	1.283	0.913	-1.198	-0.240	0.395	1.52000	0.103	Up
## 607	2003	0.103	1.283	0.913	-1.198	-0.240	1.55310	-0.991	Down
## 608	2003	-0.991	0.103	1.283	0.913	-1.198	1.27160	2.238	Up
## 609	2003	2.238	-0.991	0.103	1.283	0.913	1.34590	0.091	Up
## 610	2003	0.091	2.238	-0.991	0.103	1.283	1.47970	-0.155	Down
## 611	2003	-0.155	0.091	2.238	-0.991	0.103	1.48890	-1.524	Down
## 612	2003	-1.524	-0.155	0.091	2.238	-0.991	1.53010	0.100	Up
## 613	2003	0.100	-1.524	-0.155	0.091	2.238	1.69800	-1.411	Down
## 614	2003	-1.411	0.100	-1.524	-0.155	0.091	1.39810	0.184	Up
## 615	2003	0.184	-1.411	0.100	-1.524	-0.155	1.38830	-0.827	Down
## 616	2003	-0.827	0.184	-1.411	0.100	-1.524	1.45920	1.077	Up
## 617	2003	1.077	-0.827	0.184	-1.411	0.100	1.38740	-0.974	Down
## 618	2003	-0.974	1.077	-0.827	0.184	-1.411	1.26780	-0.176	Down
## 619	2003	-0.176	-0.974	1.077	-0.827	0.184	1.58720	0.802	Up
## 620	2003	0.802	-0.176	-0.974	1.077	-0.827	1.46020	1.164	Up
## 621	2003	1.164	0.802	-0.176	-0.974	1.077	1.51930	-0.810	Down
## 622	2003	-0.810	1.164	0.802	-0.176	-0.974	0.77590	1.899	Up
## 623	2003	1.899	-0.810	1.164	0.802	-0.176	1.42910	0.340	Up
## 624	2003	0.340	1.899	-0.810	1.164	0.802	1.56570	-0.559	Down
## 625	2003	-0.559	0.340	1.899	-0.810	1.164	1.61800	-1.348	Down
## 626	2003	-1.348	-0.559	0.340	1.899	-0.810	1.46570	0.955	Up
## 627	2003	0.955	-1.348	-0.559	0.340	1.899	1.21270	0.573	Up
## 628	2003	0.573	0.955	-1.348	-0.559	0.340	1.44890	-0.343	Down
## 629	2003	-0.343	0.573	0.955	-1.348	-0.559	1.51860	-0.633	Down
## 630	2003	-0.633	-0.343	0.573	0.955	-1.348	1.66200	-1.243	Down
## 631	2003	-1.243	-0.633	-0.343	0.573	0.955	1.66140	1.181	Up
## 632	2003	1.181	-1.243	-0.633	-0.343	0.573	1.36520	-1.462	Down
## 633	2003	-1.462	1.181	-1.243	-0.633	-0.343	1.25420	0.951	Up
## 634	2003	0.951	-1.462	1.181	-1.243	-0.633	1.43970	0.051	Up
## 635	2003	0.051	0.951	-1.462	1.181	-1.243	1.36270	-0.709	Down
## 636	2003	-0.709	0.051	0.951	-1.462	1.181	1.55900	1.740	Up
## 637	2003	1.740	-0.709	0.051	0.951	-1.462	1.39750	-0.216	Down
## 638	2003	-0.216	1.740	-0.709	0.051	0.951	1.32860	-0.727	Down
## 639	2003	-0.727	-0.216	1.740	-0.709	0.051	1.50890	-0.181	Down
## 640	2003	-0.181	-0.727	-0.216	1.740	-0.709	1.39190	0.286	Up
## 641	2003	0.286	-0.181	-0.727	-0.216	1.740	1.60800	-1.026	Down
## 642	2003	-1.026	0.286	-0.181	-0.727	-0.216	1.39060	0.272	Up

## 643	2003	0.272	-1.026	0.286	-0.181	-0.727	1.31870	-1.766	Down
## 644	2003	-1.766	0.272	-1.026	0.286	-0.181	1.35170	0.168	Up
## 645	2003	0.168	-1.766	0.272	-1.026	0.286	1.49100	0.728	Up
## 646	2003	0.728	0.168	-1.766	0.272	-1.026	1.38930	0.356	Up
## 647	2003	0.356	0.728	0.168	-1.766	0.272	1.08660	0.307	Up
## 648	2003	0.307	0.356	0.728	0.168	-1.766	1.02220	0.995	Up
## 649	2003	0.995	0.307	0.356	0.728	0.168	1.13230	-0.638	Down
## 650	2003	-0.638	0.995	0.307	0.356	0.728	1.20880	0.659	Up
## 651	2003	0.659	-0.638	0.995	0.307	0.356	1.18680	0.016	Up
## 652	2003	0.016	0.659	-0.638	0.995	0.307	0.63637	0.916	Up
## 653	2003	0.916	0.016	0.659	-0.638	0.995	1.12760	0.261	Up
## 654	2003	0.261	0.916	0.016	0.659	-0.638	1.30060	-0.205	Down
## 655	2003	-0.205	0.261	0.916	0.016	0.659	1.21080	0.297	Up
## 656	2003	0.297	-0.205	0.261	0.916	0.016	1.40710	-1.018	Down
## 657	2003	-1.018	0.297	-0.205	0.261	0.916	1.30890	0.065	Up
## 658	2003	0.065	-1.018	0.297	-0.205	0.261	0.97170	0.304	Up
## 659	2003	0.304	0.065	-1.018	0.297	-0.205	1.17870	0.006	Up
## 660	2003	0.006	0.304	0.065	-1.018	0.297	1.05140	0.607	Up
## 661	2003	0.607	0.006	0.304	0.065	-1.018	1.16520	0.516	Up
## 662	2003	0.516	0.607	0.006	0.304	0.065	0.94510	1.387	Up
## 663	2003	1.387	0.516	0.607	0.006	0.304	1.47050	0.419	Up
## 664	2003	0.419	1.387	0.516	0.607	0.006	1.67560	0.166	Up
## 665	2003	0.166	0.419	1.387	0.516	0.607	1.45390	-0.640	Down
## 666	2003	-0.640	0.166	0.419	1.387	0.516	1.46520	1.004	Up
## 667	2003	1.004	-0.640	0.166	0.419	1.387	1.29930	-0.821	Down
## 668	2003	-0.821	1.004	-0.640	0.166	0.419	1.41480	-1.197	Down
## 669	2003	-1.197	-0.821	1.004	-0.640	0.166	1.58210	0.544	Up
## 670	2003	0.544	-1.197	-0.821	1.004	-0.640	1.33590	0.217	Up
## 671	2003	0.217	0.544	-1.197	-0.821	1.004	1.23670	-0.375	Down
## 672	2003	-0.375	0.217	0.544	-1.197	-0.821	1.15130	1.430	Up
## 673	2003	1.430	-0.375	0.217	0.544	-1.197	1.40320	-0.325	Down
## 674	2003	-0.325	1.430	-0.375	0.217	0.544	1.33821	1.327	Up
## 675	2003	1.327	-0.325	1.430	-0.375	0.217	1.49880	-0.316	Down
## 676	2003	-0.316	1.327	-0.325	1.430	-0.375	1.51860	-1.301	Down
## 677	2003	-1.301	-0.316	1.327	-0.325	1.430	1.27880	0.607	Up
## 678	2003	0.607	-1.301	-0.316	1.327	-0.325	1.30170	-1.910	Down
## 679	2003	-1.910	0.607	-1.301	-0.316	1.327	1.55600	-0.605	Down
## 680	2003	-0.605	-1.910	0.607	-1.301	-0.316	1.53000	-0.640	Down
## 681	2003	-0.640	-0.605	-1.910	0.607	-1.301	1.47250	0.976	Up
## 682	2003	0.976	-0.640	-0.605	-1.910	0.607	1.36650	-1.054	Down
## 683	2003	-1.054	0.976	-0.640	-0.605	-1.910	1.59050	2.234	Up
## 684	2003	2.234	-1.054	0.976	-0.640	-0.605	1.56630	0.198	Up
## 685	2003	0.198	2.234	-1.054	0.976	-0.640	1.26930	0.942	Up
## 686	2003	0.942	0.198	2.234	-1.054	0.976	1.57050	0.437	Up
## 687	2003	0.437	0.942	0.198	2.234	-1.054	1.02580	0.474	Up
## 688	2003	0.474	0.437	0.942	0.198	2.234	1.27950	-0.526	Down
## 689	2003	-0.526	0.474	0.437	0.942	0.198	1.26250	0.479	Up
## 690	2003	0.479	-0.526	0.474	0.437	0.942	1.57870	-0.065	Down
## 691	2003	-0.065	0.479	-0.526	0.474	0.437	1.10810	0.702	Up
## 692	2003	0.702	-0.065	0.479	-0.526	0.474	1.04050	0.395	Up

## 693	2003	0.395	0.702	-0.065	0.479	-0.526	1.27190	-0.259	Down
## 694	2003	-0.259	0.395	0.702	-0.065	0.479	1.52110	0.316	Up
## 695	2003	0.316	-0.259	0.395	0.702	-0.065	1.41770	-1.024	Down
## 696	2003	-1.024	0.316	-0.259	0.395	0.702	1.35200	0.516	Up
## 697	2003	0.516	-1.024	0.316	-0.259	0.395	1.17260	0.129	Up
## 698	2003	0.129	0.516	-1.024	0.316	-0.259	1.49800	-1.498	Down
## 699	2003	-1.498	0.129	0.516	-1.024	0.316	1.64720	0.331	Up
## 700	2003	0.331	-1.498	0.129	0.516	-1.024	1.60430	-0.470	Down
## 701	2003	-0.470	0.331	-1.498	0.129	0.516	1.42030	0.216	Up
## 702	2003	0.216	-0.470	0.331	-1.498	0.129	1.37180	1.519	Up
## 703	2003	1.519	0.216	-0.470	0.331	-1.498	1.62920	0.126	Up
## 704	2003	0.126	1.519	0.216	-0.470	0.331	1.56260	-0.112	Down
## 705	2003	-0.112	0.126	1.519	0.216	-0.470	1.62970	0.360	Up
## 706	2003	0.360	-0.112	0.126	1.519	0.216	1.49890	0.791	Up
## 707	2003	0.791	0.360	-0.112	0.126	1.519	1.37820	-0.545	Down
## 708	2003	-0.545	0.791	0.360	-0.112	0.126	1.41760	-0.137	Down
## 709	2003	-0.137	-0.545	0.791	0.360	-0.112	1.40180	0.593	Up
## 710	2003	0.593	-0.137	-0.545	0.791	0.360	1.45390	-0.457	Down
## 711	2003	-0.457	0.593	-0.137	-0.545	0.791	1.44050	-0.579	Down
## 712	2003	-0.579	-0.457	0.593	-0.137	-0.545	1.24360	-0.052	Down
## 713	2003	-0.052	-0.579	-0.457	0.593	-0.137	1.16250	1.143	Up
## 714	2003	1.143	-0.052	-0.579	-0.457	0.593	1.34930	-0.011	Down
## 715	2003	-0.011	1.143	-0.052	-0.579	-0.457	1.38300	-0.762	Down
## 716	2003	-0.762	-0.011	1.143	-0.052	-0.579	1.35610	-0.640	Down
## 717	2003	-0.640	-0.762	-0.011	1.143	-0.052	1.37430	-0.908	Down
## 718	2003	-0.908	-0.640	-0.762	-0.011	1.143	1.35430	0.802	Up
## 719	2003	0.802	-0.908	-0.640	-0.762	-0.011	1.32620	-0.843	Down
## 720	2003	-0.843	0.802	-0.908	-0.640	-0.762	1.32670	0.158	Up
## 721	2003	0.158	-0.843	0.802	-0.908	-0.640	1.27380	1.623	Up
## 722	2003	1.623	0.158	-0.843	0.802	-0.908	1.30280	0.172	Up
## 723	2003	0.172	1.623	0.158	-0.843	0.802	1.33370	0.433	Up
## 724	2003	0.433	0.172	1.623	0.158	-0.843	1.09770	-0.024	Down
## 725	2003	-0.024	0.433	0.172	1.623	0.158	0.48722	1.126	Up
## 726	2003	1.126	-0.024	0.433	0.172	1.623	1.37500	-0.327	Down
## 727	2003	-0.327	1.126	-0.024	0.433	0.172	1.38320	-0.177	Down
## 728	2003	-0.177	-0.327	1.126	-0.024	0.433	1.44170	0.469	Up
## 729	2003	0.469	-0.177	-0.327	1.126	-0.024	1.46310	-0.768	Down
## 730	2003	-0.768	0.469	-0.177	-0.327	1.126	1.26590	0.735	Up
## 731	2003	0.735	-0.768	0.469	-0.177	-0.327	1.21890	-0.853	Down
## 732	2003	-0.853	0.735	-0.768	0.469	-0.177	1.46550	-0.107	Down
## 733	2003	-0.107	-0.853	0.735	-0.768	0.469	1.44400	1.148	Up
## 734	2003	1.148	-0.107	-0.853	0.735	-0.768	1.44110	0.274	Up
## 735	2003	0.274	1.148	-0.107	-0.853	0.735	1.22310	-0.568	Down
## 736	2003	-0.568	0.274	1.148	-0.107	-0.853	1.52080	0.664	Up
## 737	2003	0.664	-0.568	0.274	1.148	-0.107	1.54790	0.126	Up
## 738	2003	0.126	0.664	-0.568	0.274	1.148	1.44170	1.180	Up
## 739	2003	1.180	0.126	0.664	-0.568	0.274	1.57990	-0.048	Down
## 740	2003	-0.048	1.180	0.126	0.664	-0.568	1.65730	0.393	Up
## 741	2003	0.393	-0.048	1.180	0.126	0.664	1.25170	0.282	Up
## 742	2003	0.282	0.393	-0.048	1.180	0.126	1.14530	-0.181	Down

## 743	2003	-0.181	0.282	0.393	-0.048	1.180	0.51806	0.169	Up
## 744	2003	0.169	-0.181	0.282	0.393	-0.048	0.35607	1.240	Up
## 745	2003	1.240	0.169	-0.181	0.282	0.393	1.05880	0.014	Up
## 746	2003	0.014	1.240	0.169	-0.181	0.282	1.01260	0.205	Up
## 747	2004	0.205	0.014	1.240	0.169	-0.181	1.02750	-0.309	Down
## 748	2004	-0.309	0.205	0.014	1.240	0.169	1.15320	1.240	Up
## 749	2004	1.240	-0.309	0.205	0.014	1.240	1.57820	0.129	Up
## 750	2004	0.129	1.240	-0.309	0.205	0.014	1.49450	0.237	Up
## 751	2004	0.237	0.129	1.240	-0.309	0.205	1.70490	0.496	Up
## 752	2004	0.496	0.237	0.129	1.240	-0.309	1.86840	-0.889	Down
## 753	2004	-0.889	0.496	0.237	0.129	1.240	1.72070	0.479	Up
## 754	2004	0.479	-0.889	0.496	0.237	0.129	1.51020	-0.533	Down
## 755	2004	-0.533	0.479	-0.889	0.496	0.237	1.59590	0.829	Up
## 756	2004	0.829	-0.533	0.479	-0.889	0.496	1.51460	0.135	Up
## 757	2004	0.135	0.829	-0.533	0.479	-0.889	1.69500	0.687	Up
## 758	2004	0.687	0.135	0.829	-0.533	0.479	1.72110	-0.093	Down
## 759	2004	-0.093	0.687	0.135	0.829	-0.533	1.69820	0.777	Up
## 760	2004	0.777	-0.093	0.687	0.135	0.829	1.75760	-0.321	Down
## 761	2004	-0.321	0.777	-0.093	0.687	0.135	1.69370	-0.209	Down
## 762	2004	-0.209	-0.321	0.777	-0.093	0.687	1.56120	1.211	Up
## 763	2004	1.211	-0.209	-0.321	0.777	-0.093	1.48060	-0.980	Down
## 764	2004	-0.980	1.211	-0.209	-0.321	0.777	1.67310	-1.361	Down
## 765	2004	-1.361	-0.980	1.211	-0.209	-0.321	1.84200	0.499	Up
## 766	2004	0.499	-1.361	-0.980	1.211	-0.209	1.92190	-0.263	Down
## 767	2004	-0.263	0.499	-1.361	-0.980	1.211	1.63500	0.365	Up
## 768	2004	0.365	-0.263	0.499	-1.361	-0.980	1.59920	0.068	Up
## 769	2004	0.068	0.365	-0.263	0.499	-1.361	1.47690	-0.837	Down
## 770	2004	-0.837	0.068	0.365	-0.263	0.499	1.63480	0.184	Up
## 771	2004	0.184	-0.837	0.068	0.365	-0.263	1.56660	1.256	Up
## 772	2004	1.256	0.184	-0.837	0.068	0.365	1.47760	-0.258	Down
## 773	2004	-0.258	1.256	0.184	-0.837	0.068	1.30350	0.503	Up
## 774	2004	0.503	-0.258	1.256	0.184	-0.837	1.40390	1.067	Up
## 775	2004	1.067	0.503	-0.258	1.256	0.184	1.69930	-0.488	Down
## 776	2004	-0.488	1.067	0.503	-0.258	1.256	1.46430	-0.547	Down
## 777	2004	-0.547	-0.488	1.067	0.503	-0.258	1.32920	0.976	Up
## 778	2004	0.976	-0.547	-0.488	1.067	0.503	1.39650	-0.447	Down
## 779	2004	-0.447	0.976	-0.547	-0.488	1.067	1.38240	-0.413	Down
## 780	2004	-0.413	-0.447	0.976	-0.547	-0.488	1.56280	-0.257	Down
## 781	2004	-0.257	-0.413	-0.447	0.976	-0.547	1.47960	-0.273	Down
## 782	2004	-0.273	-0.257	-0.413	-0.447	0.976	1.38040	-0.167	Down
## 783	2004	-0.167	-0.273	-0.257	-0.413	-0.447	1.54360	0.402	Up
## 784	2004	0.402	-0.167	-0.273	-0.257	-0.413	1.36070	0.108	Up
## 785	2004	0.108	0.402	-0.167	-0.273	-0.257	1.38390	0.003	Up
## 786	2004	0.003	0.108	0.402	-0.167	-0.273	1.54040	0.963	Up
## 787	2004	0.963	0.003	0.108	0.402	-0.167	1.49710	-0.594	Down
## 788	2004	-0.594	0.963	0.003	0.108	0.402	1.47600	0.168	Up
## 789	2004	0.168	-0.594	0.963	0.003	0.108	1.33450	0.334	Up
## 790	2004	0.334	0.168	-0.594	0.963	0.003	1.26580	0.172	Up
## 791	2004	0.172	0.334	0.168	-0.594	0.963	1.39820	-0.835	Down
## 792	2004	-0.835	0.172	0.334	0.168	-0.594	1.25440	-0.577	Down

## 793	2004	-0.577	-0.835	0.172	0.334	0.168	1.49940	-1.463	Down
## 794	2004	-1.463	-0.577	-0.835	0.172	0.334	1.64840	-1.522	Down
## 795	2004	-1.522	-1.463	-0.577	-0.835	0.172	1.88990	1.246	Up
## 796	2004	1.246	-1.522	-1.463	-0.577	-0.835	1.38850	-1.435	Down
## 797	2004	-1.435	1.246	-1.522	-1.463	-0.577	1.60060	0.562	Up
## 798	2004	0.562	-1.435	1.246	-1.522	-1.463	1.50070	1.175	Up
## 799	2004	1.175	0.562	-1.435	1.246	-1.522	1.49010	-0.127	Down
## 800	2004	-0.127	1.175	0.562	-1.435	1.246	1.36920	-1.117	Down
## 801	2004	-1.117	-0.127	1.175	0.562	-1.435	1.45740	-1.296	Down
## 802	2004	-1.296	-1.117	-0.127	1.175	0.562	1.45230	-0.132	Down
## 803	2004	-0.132	-1.296	-1.117	-0.127	1.175	1.45820	-0.239	Down
## 804	2004	-0.239	-0.132	-1.296	-1.117	-0.127	1.52780	1.637	Up
## 805	2004	1.637	-0.239	-0.132	-1.296	-1.117	1.47170	-0.102	Down
## 806	2004	-0.102	1.637	-0.239	-0.132	-1.296	1.31910	1.300	Up
## 807	2004	1.300	-0.102	1.637	-0.239	-0.132	1.40550	0.404	Up
## 808	2004	0.404	1.300	-0.102	1.637	-0.239	1.33240	-0.070	Down
## 809	2004	-0.070	0.404	1.300	-0.102	1.637	1.56070	0.529	Up
## 810	2004	0.529	-0.070	0.404	1.300	-0.102	1.56070	0.851	Up
## 811	2004	0.851	0.529	-0.070	0.404	1.300	1.62920	0.767	Up
## 812	2004	0.767	0.851	0.529	-0.070	0.404	1.41370	-0.209	Down
## 813	2004	-0.209	0.767	0.851	0.529	-0.070	1.39770	-0.665	Down
## 814	2004	-0.665	-0.209	0.767	0.851	0.529	1.45880	-0.106	Down
## 815	2004	-0.106	-0.665	-0.209	0.767	0.851	1.19980	0.516	Up
## 816	2004	0.516	-0.106	-0.665	-0.209	0.767	1.10240	-1.376	Down
## 817	2004	-1.376	0.516	-0.106	-0.665	-0.209	1.42320	-0.112	Down
## 818	2004	-0.112	-1.376	0.516	-0.106	-0.665	1.54770	0.059	Up
## 819	2004	0.059	-0.112	-1.376	0.516	-0.106	1.56870	0.511	Up
## 820	2004	0.511	0.059	-0.112	-1.376	0.516	1.48780	0.107	Up
## 821	2004	0.107	0.511	0.059	-0.112	-1.376	1.19490	-1.556	Down
## 822	2004	-1.556	0.107	0.511	0.059	-0.112	1.50850	0.531	Up
## 823	2004	0.531	-1.556	0.107	0.511	0.059	1.73810	1.409	Up
## 824	2004	1.409	0.531	-1.556	0.107	0.511	1.82670	0.059	Up
## 825	2004	0.059	1.409	0.531	-1.556	0.107	1.39610	-0.445	Down
## 826	2004	-0.445	0.059	1.409	0.531	-1.556	1.29060	0.227	Up
## 827	2004	0.227	-0.445	0.059	1.409	0.531	1.51800	-1.379	Down
## 828	2004	-1.379	0.227	-0.445	0.059	1.409	1.85560	-0.759	Down
## 829	2004	-0.759	-1.379	0.227	-0.445	0.059	1.85900	-0.592	Down
## 830	2004	-0.592	-0.759	-1.379	0.227	-0.445	1.63470	0.920	Up
## 831	2004	0.920	-0.592	-0.759	-1.379	0.227	1.57160	0.184	Up
## 832	2004	0.184	0.920	-0.592	-0.759	-1.379	1.66210	0.177	Up
## 833	2004	0.177	0.184	0.920	-0.592	-0.759	1.46900	-0.672	Down
## 834	2004	-0.672	0.177	0.184	0.920	-0.592	1.50930	-1.373	Down
## 835	2004	-1.373	-0.672	0.177	0.184	0.920	1.65360	-1.054	Down
## 836	2004	-1.054	-1.373	-0.672	0.177	0.184	1.91840	0.766	Up
## 837	2004	0.766	-1.054	-1.373	-0.672	0.177	1.53380	0.167	Up
## 838	2004	0.167	0.766	-1.054	-1.373	-0.672	1.69760	-0.077	Down
## 839	2004	-0.077	0.167	0.766	-1.054	-1.373	1.41110	-0.067	Down
## 840	2004	-0.067	-0.077	0.167	0.766	-1.054	1.33590	-1.059	Down
## 841	2004	-1.059	-0.067	-0.077	0.167	0.766	1.43010	0.682	Up
## 842	2004	0.682	-1.059	-0.067	-0.077	0.167	1.35300	-0.257	Down

## 843	2004	-0.257	0.682	-1.059	-0.067	-0.077	1.54860	0.047	Up
## 844	2004	0.047	-0.257	0.682	-1.059	-0.067	1.21100	0.401	Up
## 845	2004	0.401	0.047	-0.257	0.682	-1.059	1.25860	0.169	Up
## 846	2004	0.169	0.401	0.047	-0.257	0.682	1.22750	1.610	Up
## 847	2004	1.610	0.169	0.401	0.047	-0.257	1.54570	0.170	Up
## 848	2004	0.170	1.610	0.169	0.401	0.047	1.36940	0.569	Up
## 849	2004	0.569	0.170	1.610	0.169	0.401	1.44750	-0.054	Down
## 850	2004	-0.054	0.569	0.170	1.610	0.169	1.17260	0.046	Up
## 851	2004	0.046	-0.054	0.569	0.170	1.610	1.23800	0.338	Up
## 852	2004	0.338	0.046	-0.054	0.569	0.170	1.25170	-0.742	Down
## 853	2004	-0.742	0.338	0.046	-0.054	0.569	1.23240	0.525	Up
## 854	2004	0.525	-0.742	0.338	0.046	-0.054	1.11530	1.596	Up
## 855	2004	1.596	0.525	-0.742	0.338	0.046	1.21180	0.154	Up
## 856	2004	0.154	1.596	0.525	-0.742	0.338	1.19030	-0.950	Down
## 857	2004	-0.950	0.154	1.596	0.525	-0.742	1.27680	0.454	Up
## 858	2004	0.454	-0.950	0.154	1.596	0.525	1.16060	-0.984	Down
## 859	2004	-0.984	0.454	-0.950	0.154	1.596	1.17940	0.597	Up
## 860	2004	0.597	-0.984	0.454	-0.950	0.154	1.34590	0.137	Up
## 861	2004	0.137	0.597	-0.984	0.454	-0.950	1.16840	-0.133	Down
## 862	2004	-0.133	0.137	0.597	-0.984	0.454	1.29670	0.262	Up
## 863	2004	0.262	-0.133	0.137	0.597	-0.984	1.50060	-0.416	Down
## 864	2004	-0.416	0.262	-0.133	0.137	0.597	1.12390	0.364	Up
## 865	2004	0.364	-0.416	0.262	-0.133	0.137	1.38230	0.851	Up
## 866	2004	0.851	0.364	-0.416	0.262	-0.133	1.44420	-0.298	Down
## 867	2004	-0.298	0.851	0.364	-0.416	0.262	1.39490	-0.545	Down
## 868	2004	-0.545	-0.298	0.851	0.364	-0.416	1.81290	-0.095	Down
## 869	2004	-0.095	-0.545	-0.298	0.851	0.364	1.35460	0.251	Up
## 870	2004	0.251	-0.095	-0.545	-0.298	0.851	1.37500	0.408	Up
## 871	2004	0.408	0.251	-0.095	-0.545	-0.298	1.47380	-1.043	Down
## 872	2004	-1.043	0.408	0.251	-0.095	-0.545	1.49570	-0.315	Down
## 873	2004	-0.315	-1.043	0.408	0.251	-0.095	1.08500	-0.815	Down
## 874	2004	-0.815	-0.315	-1.043	0.408	0.251	1.28330	0.190	Up
## 875	2004	0.190	-0.815	-0.315	-1.043	0.408	1.32860	-0.824	Down
## 876	2004	-0.824	0.190	-0.815	-0.315	-1.043	1.40110	0.334	Up
## 877	2004	0.334	-0.824	0.190	-0.815	-0.315	1.18630	0.138	Up
## 878	2004	0.138	0.334	-0.824	0.190	-0.815	1.11460	0.071	Up
## 879	2004	0.071	0.138	0.334	-0.824	0.190	1.19970	-0.329	Down
## 880	2004	-0.329	0.071	0.138	0.334	-0.824	1.46200	-0.430	Down
## 881	2004	-0.430	-0.329	0.071	0.138	0.334	1.40870	-0.479	Down
## 882	2004	-0.479	-0.430	-0.329	0.071	0.138	1.45030	-0.044	Down
## 883	2004	-0.044	-0.479	-0.430	-0.329	0.071	1.31990	0.706	Up
## 884	2004	0.706	-0.044	-0.479	-0.430	-0.329	1.44580	-1.334	Down
## 885	2004	-1.334	0.706	-0.044	-0.479	-0.430	1.67950	0.271	Up
## 886	2004	0.271	-1.334	0.706	-0.044	-0.479	1.68080	-0.970	Down
## 887	2004	-0.970	0.271	-1.334	0.706	-0.044	1.33750	-0.196	Down
## 888	2004	-0.196	-0.970	0.271	-1.334	0.706	1.41340	0.993	Up
## 889	2004	0.993	-0.196	-0.970	0.271	-1.334	1.61080	0.054	Up
## 890	2004	0.054	0.993	-0.196	-0.970	0.271	1.55430	0.457	Up
## 891	2004	0.457	0.054	0.993	-0.196	-0.970	1.53010	0.117	Up
## 892	2004	0.117	0.457	0.054	0.993	-0.196	1.29820	0.445	Up

## 893	2004	0.445	0.117	0.457	0.054	0.993	1.27600	-0.626	Down
## 894	2004	-0.626	0.445	0.117	0.457	0.054	1.33830	-0.096	Down
## 895	2004	-0.096	-0.626	0.445	0.117	0.457	1.36920	-1.632	Down
## 896	2004	-1.632	-0.096	-0.626	0.445	0.117	1.39740	-1.548	Down
## 897	2004	-1.548	-1.632	-0.096	-0.626	0.445	1.52100	0.117	Up
## 898	2004	0.117	-1.548	-1.632	-0.096	-0.626	1.08600	1.297	Up
## 899	2004	1.297	0.117	-1.548	-1.632	-0.096	1.24560	-0.301	Down
## 900	2004	-0.301	1.297	0.117	-1.548	-1.632	1.41040	-1.168	Down
## 901	2004	-1.168	-0.301	1.297	0.117	-1.548	1.40510	0.148	Up
## 902	2004	0.148	-1.168	-0.301	1.297	0.117	1.17510	1.366	Up
## 903	2004	1.366	0.148	-1.168	-0.301	1.297	1.20620	0.220	Up
## 904	2004	0.220	1.366	0.148	-1.168	-0.301	1.26780	1.244	Up
## 905	2004	1.244	0.220	1.366	0.148	-1.168	1.28250	-0.360	Down
## 906	2004	-0.360	1.244	0.220	1.366	0.148	1.24940	0.652	Up
## 907	2004	0.652	-0.360	1.244	0.220	1.366	1.19990	-0.243	Down
## 908	2004	-0.243	0.652	-0.360	1.244	0.220	1.02190	0.047	Up
## 909	2004	0.047	-0.243	0.652	-0.360	1.244	1.09250	0.800	Up
## 910	2004	0.800	0.047	-0.243	0.652	-0.360	1.19220	0.012	Up
## 911	2004	0.012	0.800	0.047	-0.243	0.652	1.02360	0.243	Up
## 912	2004	0.243	0.012	0.800	0.047	-0.243	0.84540	-0.778	Down
## 913	2004	-0.778	0.243	0.012	0.800	0.047	0.84310	0.463	Up
## 914	2004	0.463	-0.778	0.243	0.012	0.800	1.13820	0.151	Up
## 915	2004	0.151	0.463	-0.778	0.243	0.012	1.14210	1.121	Up
## 916	2004	1.121	0.151	0.463	-0.778	0.243	1.11840	-0.418	Down
## 917	2004	-0.418	1.121	0.151	0.463	-0.778	0.92417	0.689	Up
## 918	2004	0.689	-0.418	1.121	0.151	0.463	1.21440	-0.449	Down
## 919	2004	-0.449	0.689	-0.418	1.121	0.151	1.24630	0.189	Up
## 920	2004	0.189	-0.449	0.689	-0.418	1.121	1.37130	0.495	Up
## 921	2004	0.495	0.189	-0.449	0.689	-0.418	1.26120	0.169	Up
## 922	2004	0.169	0.495	0.189	-0.449	0.689	1.29980	0.223	Up
## 923	2004	0.223	0.169	0.495	0.189	-0.449	1.20450	-0.705	Down
## 924	2004	-0.705	0.223	0.169	0.495	0.189	1.25600	0.279	Up
## 925	2004	0.279	-0.705	0.223	0.169	0.495	1.11390	0.449	Up
## 926	2004	0.449	0.279	-0.705	0.223	0.169	1.42260	-0.563	Down
## 927	2004	-0.563	0.449	0.279	-0.705	0.223	1.19760	0.633	Up
## 928	2004	0.633	-0.563	0.449	0.279	-0.705	1.32500	-1.394	Down
## 929	2004	-1.394	0.633	-0.563	0.449	0.279	1.37990	-0.467	Down
## 930	2004	-0.467	-1.394	0.633	-0.563	0.449	1.28630	0.158	Up
## 931	2004	0.158	-0.467	-1.394	0.633	-0.563	1.25540	-0.594	Down
## 932	2004	-0.594	0.158	-0.467	-1.394	0.633	1.26350	0.593	Up
## 933	2004	0.593	-0.594	0.158	-0.467	-1.394	1.39660	0.427	Up
## 934	2004	0.427	0.593	-0.594	0.158	-0.467	1.40290	-0.020	Down
## 935	2004	-0.020	0.427	0.593	-0.594	0.158	1.74800	1.518	Up
## 936	2004	1.518	-0.020	0.427	0.593	-0.594	1.58220	0.324	Up
## 937	2004	0.324	1.518	-0.020	0.427	0.593	1.53400	-0.061	Down
## 938	2004	-0.061	0.324	1.518	-0.020	0.427	1.41840	0.667	Up
## 939	2004	0.667	-0.061	0.324	1.518	-0.020	1.41670	-0.998	Down
## 940	2004	-0.998	0.667	-0.061	0.324	1.518	1.44750	-0.753	Down
## 941	2004	-0.753	-0.998	0.667	-0.061	0.324	1.29160	0.201	Up
## 942	2004	0.201	-0.753	-0.998	0.667	-0.061	0.94380	-0.227	Down

## 943	2004	-0.227	0.201	-0.753	-0.998	0.667	1.32010	-0.730	Down
## 944	2004	-0.730	-0.227	0.201	-0.753	-0.998	1.54620	-0.930	Down
## 945	2004	-0.930	-0.730	-0.227	0.201	-0.753	1.48950	0.445	Up
## 946	2004	0.445	-0.930	-0.730	-0.227	0.201	1.64510	0.525	Up
## 947	2004	0.525	0.445	-0.930	-0.730	-0.227	1.37330	-0.969	Down
## 948	2004	-0.969	0.525	0.445	-0.930	-0.730	1.73750	0.039	Up
## 949	2004	0.039	-0.969	0.525	0.445	-0.930	1.68570	0.256	Up
## 950	2004	0.256	0.039	-0.969	0.525	0.445	1.67300	-0.972	Down
## 951	2004	-0.972	0.256	0.039	-0.969	0.525	1.46960	-0.086	Down
## 952	2004	-0.086	-0.972	0.256	0.039	-0.969	1.38050	1.488	Up
## 953	2004	1.488	-0.086	-0.972	0.256	0.039	1.68540	1.288	Up
## 954	2004	1.288	1.488	-0.086	-0.972	0.256	1.74190	0.181	Up
## 955	2004	0.181	1.288	1.488	-0.086	-0.972	1.62820	0.245	Up
## 956	2004	0.245	0.181	1.288	1.488	-0.086	1.50080	0.027	Up
## 957	2004	0.027	0.245	0.181	1.288	1.488	1.39590	0.004	Up
## 958	2004	0.004	0.027	0.245	0.181	1.288	1.65900	1.118	Up
## 959	2004	1.118	0.004	0.027	0.245	0.181	1.76750	1.616	Up
## 960	2004	1.616	1.118	0.004	0.027	0.245	1.78270	0.387	Up
## 961	2004	0.387	1.616	1.118	0.004	0.027	1.72440	-0.110	Down
## 962	2004	-0.110	0.387	1.616	1.118	0.004	1.35870	-0.070	Down
## 963	2004	-0.070	-0.110	0.387	1.616	1.118	1.45080	-0.101	Down
## 964	2004	-0.101	-0.070	-0.110	0.387	1.616	1.50430	0.909	Up
## 965	2004	0.909	-0.101	-0.070	-0.110	0.387	1.39300	0.911	Up
## 966	2004	0.911	0.909	-0.101	-0.070	-0.110	1.53160	-0.030	Down
## 967	2004	-0.030	0.911	0.909	-0.101	-0.070	1.45330	-0.708	Down
## 968	2004	-0.708	-0.030	0.911	0.909	-0.101	1.36440	0.554	Up
## 969	2004	0.554	-0.708	-0.030	0.911	0.909	1.68420	0.136	Up
## 970	2004	0.136	0.554	-0.708	-0.030	0.911	1.45670	-1.116	Down
## 971	2004	-1.116	0.136	0.554	-0.708	-0.030	1.52660	0.590	Up
## 972	2004	0.590	-1.116	0.136	0.554	-0.708	1.39270	-0.025	Down
## 973	2004	-0.025	0.590	-1.116	0.136	0.554	1.42830	0.410	Up
## 974	2004	0.410	-0.025	0.590	-1.116	0.136	1.14960	0.075	Up
## 975	2004	0.075	0.410	-0.025	0.590	-1.116	0.50458	-0.345	Down
## 976	2004	-0.345	0.075	0.410	-0.025	0.590	1.37850	-0.403	Down
## 977	2004	-0.403	-0.345	0.075	0.410	-0.025	1.55350	1.495	Up
## 978	2004	1.495	-0.403	-0.345	0.075	0.410	1.77280	-0.087	Down
## 979	2004	-0.087	1.495	-0.403	-0.345	0.075	1.77490	0.071	Up
## 980	2004	0.071	-0.087	1.495	-0.403	-0.345	1.56670	-0.077	Down
## 981	2004	-0.077	0.071	-0.087	1.495	-0.403	1.35440	-1.107	Down
## 982	2004	-1.107	-0.077	0.071	-0.087	1.495	1.53390	0.488	Up
## 983	2004	0.488	-1.107	-0.077	0.071	-0.087	1.52520	0.544	Up
## 984	2004	0.544	0.488	-1.107	-0.077	0.071	1.62470	-0.104	Down
## 985	2004	-0.104	0.544	0.488	-1.107	-0.077	1.44370	0.899	Up
## 986	2004	0.899	-0.104	0.544	0.488	-1.107	1.43610	0.392	Up
## 987	2004	0.392	0.899	-0.104	0.544	0.488	1.54440	0.194	Up
## 988	2004	0.194	0.392	0.899	-0.104	0.544	1.69580	-0.208	Down
## 989	2004	-0.208	0.194	0.392	0.899	-0.104	1.79390	-0.749	Down
## 990	2004	-0.749	-0.208	0.194	0.392	0.899	2.33500	0.038	Up
## 991	2004	0.038	-0.749	-0.208	0.194	0.392	1.42280	0.904	Up
## 992	2004	0.904	0.038	-0.749	-0.208	0.194	1.48370	0.342	Up

## 993	2004	0.342	0.904	0.038	-0.749	-0.208	1.39080	0.046	Up
## 994	2004	0.046	0.342	0.904	0.038	-0.749	0.95610	-0.431	Down
## 995	2004	-0.431	0.046	0.342	0.904	0.038	0.92200	0.715	Up
## 996	2004	0.715	-0.431	0.046	0.342	0.904	0.98300	-0.007	Down
## 997	2004	-0.007	0.715	-0.431	0.046	0.342	0.92590	0.008	Up
## 998	2004	0.008	-0.007	0.715	-0.431	0.046	0.82980	-0.134	Down
## 999	2005	-0.134	0.008	-0.007	0.715	-0.431	0.78690	-0.812	Down
## 1000	2005	-0.812	-0.134	0.008	-0.007	0.715	1.51080	-1.167	Down
## 1001	2005	-1.167	-0.812	-0.134	0.008	-0.007	1.72100	-0.363	Down
## 1002	2005	-0.363	-1.167	-0.812	-0.134	0.008	1.73890	0.351	Up
## 1003	2005	0.351	-0.363	-1.167	-0.812	-0.134	1.56910	-0.143	Down
## 1004	2005	-0.143	0.351	-0.363	-1.167	-0.812	1.47790	0.342	Up
## 1005	2005	0.342	-0.143	0.351	-0.363	-1.167	1.49040	-0.610	Down
## 1006	2005	-0.610	0.342	-0.143	0.351	-0.363	1.48880	0.398	Up
## 1007	2005	0.398	-0.610	0.342	-0.143	0.351	1.56210	-0.863	Down
## 1008	2005	-0.863	0.398	-0.610	0.342	-0.143	1.51030	0.600	Up
## 1009	2005	0.600	-0.863	0.398	-0.610	0.342	1.33540	0.967	Up
## 1010	2005	0.967	0.600	-0.863	0.398	-0.610	1.59680	-0.949	Down
## 1011	2005	-0.949	0.967	0.600	-0.863	0.398	1.49870	-0.778	Down
## 1012	2005	-0.778	-0.949	0.967	0.600	-0.863	1.69200	-0.641	Down
## 1013	2005	-0.641	-0.778	-0.949	0.967	0.600	1.64350	-0.353	Down
## 1014	2005	-0.353	-0.641	-0.778	-0.949	0.967	1.49460	0.400	Up
## 1015	2005	0.400	-0.353	-0.641	-0.778	-0.949	1.61040	0.484	Up
## 1016	2005	0.484	0.400	-0.353	-0.641	-0.778	1.63590	0.041	Up
## 1017	2005	0.041	0.484	0.400	-0.353	-0.641	1.60060	-0.272	Down
## 1018	2005	-0.272	0.041	0.484	0.400	-0.353	1.64180	0.846	Up
## 1019	2005	0.846	-0.272	0.041	0.484	0.400	1.67980	0.689	Up
## 1020	2005	0.689	0.846	-0.272	0.041	0.484	1.68198	0.318	Up
## 1021	2005	0.318	0.689	0.846	-0.272	0.041	1.56174	-0.277	Down
## 1022	2005	-0.277	0.318	0.689	0.846	-0.272	1.55446	1.104	Up
## 1023	2005	1.104	-0.277	0.318	0.689	0.846	1.64816	-0.109	Down
## 1024	2005	-0.109	1.104	-0.277	0.318	0.689	1.34727	0.048	Up
## 1025	2005	0.048	-0.109	1.104	-0.277	0.318	1.41617	-0.858	Down
## 1026	2005	-0.858	0.048	-0.109	1.104	-0.277	1.51104	0.421	Up
## 1027	2005	0.421	-0.858	0.048	-0.109	1.104	1.49167	0.693	Up
## 1028	2005	0.693	0.421	-0.858	0.048	-0.109	1.56230	0.070	Up
## 1029	2005	0.070	0.693	0.421	-0.858	0.048	1.29018	0.330	Up
## 1030	2005	0.330	0.070	0.693	0.421	-0.858	1.52708	0.018	Up
## 1031	2005	0.018	0.330	0.070	0.693	0.421	1.49010	-0.792	Down
## 1032	2005	-0.792	0.018	0.330	0.070	0.693	1.58012	0.070	Up
## 1033	2005	0.070	-0.792	0.018	0.330	0.070	1.55120	-1.451	Down
## 1034	2005	-1.451	0.070	-0.792	0.018	0.330	1.74494	0.561	Up
## 1035	2005	0.561	-1.451	0.070	-0.792	0.018	1.50109	0.789	Up
## 1036	2005	0.789	0.561	-1.451	0.070	-0.792	1.51875	0.931	Up
## 1037	2005	0.931	0.789	0.561	-1.451	0.070	1.52368	-0.641	Down
## 1038	2005	-0.641	0.931	0.789	0.561	-1.451	1.79548	0.566	Up
## 1039	2005	0.566	-0.641	0.931	0.789	0.561	1.70806	-0.027	Down
## 1040	2005	-0.027	0.566	-0.641	0.931	0.789	1.56854	0.032	Up
## 1041	2005	0.032	-0.027	0.566	-0.641	0.931	1.61624	0.962	Up
## 1042	2005	0.962	0.032	-0.027	0.566	-0.641	1.63682	0.261	Up

##	1043	2005	0.261	0.962	0.032	-0.027	0.566	1.48883	-0.480	Down
##	1044	2005	-0.480	0.261	0.962	0.032	-0.027	1.52309	-1.019	Down
##	1045	2005	-1.019	-0.480	0.261	0.962	0.032	1.70497	0.186	Up
##	1046	2005	0.186	-1.019	-0.480	0.261	0.962	1.60402	-0.758	Down
##	1047	2005	-0.758	0.186	-1.019	-0.480	0.261	1.44982	0.562	Up
##	1048	2005	0.562	-0.758	0.186	-1.019	-0.480	1.43743	-0.752	Down
##	1049	2005	-0.752	0.562	-0.758	0.186	-1.019	1.51353	-0.808	Down
##	1050	2005	-0.808	-0.752	0.562	-0.758	0.186	1.65319	0.180	Up
##	1051	2005	0.180	-0.808	-0.752	0.562	-0.758	1.58193	-0.047	Down
##	1052	2005	-0.047	0.180	-0.808	-0.752	0.562	2.34437	-0.493	Down
##	1053	2005	-0.493	-0.047	0.180	-0.808	-0.752	1.81944	-1.020	Down
##	1054	2005	-1.020	-0.493	-0.047	0.180	-0.808	2.11447	0.070	Up
##	1055	2005	0.070	-1.020	-0.493	-0.047	0.180	2.24687	-0.095	Down
##	1056	2005	-0.095	0.070	-1.020	-0.493	-0.047	1.72172	0.244	Up
##	1057	2005	0.244	-0.095	0.070	-1.020	-0.493	1.74622	-0.760	Down
##	1058	2005	-0.760	0.244	-0.095	0.070	-1.020	2.22325	1.377	Up
##	1059	2005	1.377	-0.760	0.244	-0.095	0.070	2.09711	-0.069	Down
##	1060	2005	-0.069	1.377	-0.760	0.244	-0.095	2.21423	-0.650	Down
##	1061	2005	-0.650	-0.069	1.377	-0.760	0.244	2.16869	0.273	Up
##	1062	2005	0.273	-0.650	-0.069	1.377	-0.760	2.07977	0.448	Up
##	1063	2005	0.448	0.273	-0.650	-0.069	1.377	1.87080	0.227	Up
##	1064	2005	0.227	0.448	0.273	-0.650	-0.069	1.79740	0.597	Up
##	1065	2005	0.597	0.227	0.448	0.273	-0.650	1.90062	-0.834	Down
##	1066	2005	-0.834	0.597	0.227	0.448	0.273	1.66133	0.001	Up
##	1067	2005	0.001	-0.834	0.597	0.227	0.448	1.52531	0.555	Up
##	1068	2005	0.555	0.001	-0.834	0.597	0.227	1.97983	-1.176	Down
##	1069	2005	-1.176	0.555	0.001	-0.834	0.597	2.04974	-1.000	Down
##	1070	2005	-1.000	-1.176	0.555	0.001	-0.834	2.35504	-1.672	Down
##	1071	2005	-1.672	-1.000	-1.176	0.555	0.001	2.68996	0.294	Up
##	1072	2005	0.294	-1.672	-1.000	-1.176	0.555	2.18067	0.593	Up
##	1073	2005	0.593	0.294	-1.672	-1.000	-1.176	2.14270	-1.325	Down
##	1074	2005	-1.325	0.593	0.294	-1.672	-1.000	2.21705	1.974	Up
##	1075	2005	1.974	-1.325	0.593	0.294	-1.672	2.30856	-0.675	Down
##	1076	2005	-0.675	1.974	-1.325	0.593	0.294	2.04588	0.866	Up
##	1077	2005	0.866	-0.675	1.974	-1.325	0.593	1.79503	-0.884	Down
##	1078	2005	-0.884	0.866	-0.675	1.974	-1.325	1.95974	0.395	Up
##	1079	2005	0.395	-0.884	0.866	-0.675	1.974	2.15152	-1.138	Down
##	1080	2005	-1.138	0.395	-0.884	0.866	-0.675	2.18227	1.192	Up
##	1081	2005	1.192	-1.138	0.395	-0.884	0.866	2.36236	0.459	Up
##	1082	2005	0.459	1.192	-1.138	0.395	-0.884	1.98004	-0.085	Down
##	1083	2005	-0.085	0.459	1.192	-1.138	0.395	2.16702	1.247	Up
##	1084	2005	1.247	-0.085	0.459	1.192	-1.138	2.30648	-0.257	Down
##	1085	2005	-0.257	1.247	-0.085	0.459	1.192	1.99710	-0.109	Down
##	1086	2005	-0.109	-0.257	1.247	-0.085	0.459	1.70720	0.639	Up
##	1087	2005	0.639	-0.109	-0.257	1.247	-0.085	1.85702	-1.071	Down
##	1088	2005	-1.071	0.639	-0.109	-0.257	1.247	1.88966	0.419	Up
##	1089	2005	0.419	-1.071	0.639	-0.109	-0.257	1.83497	-1.003	Down
##	1090	2005	-1.003	0.419	-1.071	0.639	-0.109	1.99529	-0.458	Down
##	1091	2005	-0.458	-1.003	0.419	-1.071	0.639	2.18859	1.009	Up
##	1092	2005	1.009	-0.458	-1.003	0.419	-1.071	1.85686	0.696	Up

##	1093	2005	0.696	1.009	-0.458	-1.003	0.419	1.88726	1.002	Up
##	1094	2005	1.002	0.696	1.009	-0.458	-1.003	2.26632	0.466	Up
##	1095	2005	0.466	1.002	0.696	1.009	-0.458	1.77586	-0.151	Down
##	1096	2005	-0.151	0.466	1.002	0.696	1.009	1.63175	0.385	Up
##	1097	2005	0.385	-0.151	0.466	1.002	0.696	1.68117	0.018	Up
##	1098	2005	0.018	0.385	-0.151	0.466	1.002	1.68100	-0.340	Down
##	1099	2005	-0.340	0.018	0.385	-0.151	0.466	1.74218	0.639	Up
##	1100	2005	0.639	-0.340	0.018	0.385	-0.151	1.65411	0.097	Up
##	1101	2005	0.097	0.639	-0.340	0.018	0.385	1.38143	-0.607	Down
##	1102	2005	-0.607	0.097	0.639	-0.340	0.018	1.84068	0.900	Up
##	1103	2005	0.900	-0.607	0.097	0.639	-0.340	1.81010	0.172	Up
##	1104	2005	0.172	0.900	-0.607	0.097	0.639	1.81379	-0.687	Down
##	1105	2005	-0.687	0.172	0.900	-0.607	0.097	1.62752	0.125	Up
##	1106	2005	0.125	-0.687	0.172	0.900	-0.607	1.54712	-0.021	Down
##	1107	2005	-0.021	0.125	-0.687	0.172	0.900	1.85137	-0.216	Down
##	1108	2005	-0.216	-0.021	0.125	-0.687	0.172	1.71549	0.524	Up
##	1109	2005	0.524	-0.216	-0.021	0.125	-0.687	1.82412	-0.235	Down
##	1110	2005	-0.235	0.524	-0.216	-0.021	0.125	1.66418	0.226	Up
##	1111	2005	0.226	-0.235	0.524	-0.216	-0.021	1.66135	0.257	Up
##	1112	2005	0.257	0.226	-0.235	0.524	-0.216	1.69815	0.222	Up
##	1113	2005	0.222	0.257	0.226	-0.235	0.524	1.84044	0.363	Up
##	1114	2005	0.363	0.222	0.257	0.226	-0.235	1.77604	0.495	Up
##	1115	2005	0.495	0.363	0.222	0.257	0.226	2.40737	-0.071	Down
##	1116	2005	-0.071	0.495	0.363	0.222	0.257	1.71453	-0.205	Down
##	1117	2005	-0.205	-0.071	0.495	0.363	0.222	1.72070	0.022	Up
##	1118	2005	0.022	-0.205	-0.071	0.495	0.363	1.82325	-1.083	Down
##	1119	2005	-1.083	0.022	-0.205	-0.071	0.495	2.02992	-0.763	Down
##	1120	2005	-0.763	-1.083	0.022	-0.205	-0.071	2.41880	-0.074	Down
##	1121	2005	-0.074	-0.763	-1.083	0.022	-0.205	1.73862	0.914	Up
##	1122	2005	0.914	-0.074	-0.763	-1.083	0.022	1.77241	-0.143	Down
##	1123	2005	-0.143	0.914	-0.074	-0.763	-1.083	1.76928	-0.710	Down
##	1124	2005	-0.710	-0.143	0.914	-0.074	-0.763	2.10949	0.261	Up
##	1125	2005	0.261	-0.710	-0.143	0.914	-0.074	1.59382	0.883	Up
##	1126	2005	0.883	0.261	-0.710	-0.143	0.914	1.80582	-0.834	Down
##	1127	2005	-0.834	0.883	0.261	-0.710	-0.143	1.88347	0.245	Up
##	1128	2005	0.245	-0.834	0.883	0.261	-0.710	1.95244	1.168	Up
##	1129	2005	1.168	0.245	-0.834	0.883	0.261	1.90081	0.625	Up
##	1130	2005	0.625	1.168	0.245	-0.834	0.883	1.84630	0.227	Up
##	1131	2005	0.227	0.625	1.168	0.245	-0.834	1.93201	0.088	Up
##	1132	2005	0.088	0.227	0.625	1.168	0.245	1.81250	0.262	Up
##	1133	2005	0.262	0.088	0.227	0.625	1.168	2.04871	0.116	Up
##	1134	2005	0.116	0.262	0.088	0.227	0.625	1.71640	-0.553	Down
##	1135	2005	-0.553	0.116	0.262	0.088	0.227	1.58210	0.673	Up
##	1136	2005	0.673	-0.553	0.116	0.262	0.088	2.04128	0.476	Up
##	1137	2005	0.476	0.673	-0.553	0.116	0.262	2.06334	-0.661	Down
##	1138	2005	-0.661	0.476	0.673	-0.553	0.116	2.12984	0.541	Up
##	1139	2005	0.541	-0.661	0.476	0.673	-0.553	1.76699	-0.377	Down
##	1140	2005	-0.377	0.541	-0.661	0.476	0.673	1.71758	0.173	Up
##	1141	2005	0.173	-0.377	0.541	-0.661	0.476	1.93418	0.457	Up
##	1142	2005	0.457	0.173	-0.377	0.541	-0.661	1.94580	0.560	Up

##	1143	2005	0.560	0.457	0.173	-0.377	0.541	2.00168	-0.767	Down
##	1144	2005	-0.767	0.560	0.457	0.173	-0.377	1.78960	0.095	Up
##	1145	2005	0.095	-0.767	0.560	0.457	0.173	1.71687	0.710	Up
##	1146	2005	0.710	0.095	-0.767	0.560	0.457	2.04312	0.074	Up
##	1147	2005	0.074	0.710	0.095	-0.767	0.560	1.99998	-0.737	Down
##	1148	2005	-0.737	0.074	0.710	0.095	-0.767	1.98122	-0.764	Down
##	1149	2005	-0.764	-0.737	0.074	0.710	0.095	1.93028	-0.268	Down
##	1150	2005	-0.268	-0.764	-0.737	0.074	0.710	1.80414	0.674	Up
##	1151	2005	0.674	-0.268	-0.764	-0.737	0.074	1.89752	-0.183	Down
##	1152	2005	-0.183	0.674	-0.268	-0.764	-0.737	2.17232	0.706	Up
##	1153	2005	0.706	-0.183	0.674	-0.268	-0.764	1.94156	-0.599	Down
##	1154	2005	-0.599	0.706	-0.183	0.674	-0.268	1.70930	0.283	Up
##	1155	2005	0.283	-0.599	0.706	-0.183	0.674	1.56288	-1.178	Down
##	1156	2005	-1.178	0.283	-0.599	0.706	-0.183	1.82041	0.074	Up
##	1157	2005	0.074	-1.178	0.283	-0.599	0.706	1.85915	-0.100	Down
##	1158	2005	-0.100	0.074	-1.178	0.283	-0.599	1.80817	0.057	Up
##	1159	2005	0.057	-0.100	0.074	-1.178	0.283	1.55879	0.166	Up
##	1160	2005	0.166	0.057	-0.100	0.074	-1.178	1.62133	-0.339	Down
##	1161	2005	-0.339	0.166	0.057	-0.100	0.074	1.67862	-0.657	Down
##	1162	2005	-0.657	-0.339	0.166	0.057	-0.100	1.93080	0.230	Up
##	1163	2005	0.230	-0.657	-0.339	0.166	0.057	1.57111	-0.600	Down
##	1164	2005	-0.600	0.230	-0.657	-0.339	0.166	1.54109	0.596	Up
##	1165	2005	0.596	-0.600	0.230	-0.657	-0.339	1.59945	-0.319	Down
##	1166	2005	-0.319	0.596	-0.600	0.230	-0.657	1.91647	0.986	Up
##	1167	2005	0.986	-0.319	0.596	-0.600	0.230	2.36551	0.103	Up
##	1168	2005	0.103	0.986	-0.319	0.596	-0.600	2.22986	-0.292	Down
##	1169	2005	-0.292	0.103	0.986	-0.319	0.596	1.64016	1.262	Up
##	1170	2005	1.262	-0.292	0.103	0.986	-0.319	1.93209	0.241	Up
##	1171	2005	0.241	1.262	-0.292	0.103	0.986	2.06770	-0.379	Down
##	1172	2005	-0.379	0.241	1.262	-0.292	0.103	1.95538	0.796	Up
##	1173	2005	0.796	-0.379	0.241	1.262	-0.292	1.99256	-0.074	Down
##	1174	2005	-0.074	0.796	-0.379	0.241	1.262	1.93805	-0.754	Down
##	1175	2005	-0.754	-0.074	0.796	-0.379	0.241	2.08236	-0.328	Down
##	1176	2005	-0.328	-0.754	-0.074	0.796	-0.379	1.98675	0.046	Up
##	1177	2005	0.046	-0.328	-0.754	-0.074	0.796	2.07934	0.829	Up
##	1178	2005	0.829	0.046	-0.328	-0.754	-0.074	3.15247	-0.557	Down
##	1179	2005	-0.557	0.829	0.046	-0.328	-0.754	2.07654	-0.786	Down
##	1180	2005	-0.786	-0.557	0.829	0.046	-0.328	2.31925	-0.912	Down
##	1181	2005	-0.912	-0.786	-0.557	0.829	0.046	2.54815	0.365	Up
##	1182	2005	0.365	-0.912	-0.786	-0.557	0.829	2.42472	0.055	Up
##	1183	2005	0.055	0.365	-0.912	-0.786	-0.557	1.97302	0.028	Up
##	1184	2005	0.028	0.055	0.365	-0.912	-0.786	2.02222	0.002	Up
##	1185	2005	0.002	0.028	0.055	0.365	-0.912	1.97627	0.101	Up
##	1186	2005	0.101	0.002	0.028	0.055	0.365	2.10698	0.887	Up
##	1187	2005	0.887	0.101	0.002	0.028	0.055	2.17612	0.092	Up
##	1188	2005	0.092	0.887	0.101	0.002	0.028	2.09752	-0.172	Down
##	1189	2005	-0.172	0.092	0.887	0.101	0.002	2.09749	-0.997	Down
##	1190	2005	-0.997	-0.172	0.092	0.887	0.101	2.34142	-1.489	Down
##	1191	2005	-1.489	-0.997	-0.172	0.092	0.887	2.54678	-0.410	Down
##	1192	2005	-0.410	-1.489	-0.997	-0.172	0.092	2.79203	0.370	Up

##	1193	2005	0.370	-0.410	-1.489	-0.997	-0.172	2.12608	-0.717	Down
##	1194	2005	-0.717	0.370	-0.410	-1.489	-0.997	2.19599	-0.207	Down
##	1195	2005	-0.207	-0.717	0.370	-0.410	-1.489	2.29904	-0.607	Down
##	1196	2005	-0.607	-0.207	-0.717	0.370	-0.410	2.49128	-0.071	Down
##	1197	2005	-0.071	-0.607	-0.207	-0.717	0.370	2.35115	0.827	Up
##	1198	2005	0.827	-0.071	-0.607	-0.207	-0.717	2.18894	0.297	Up
##	1199	2005	0.297	0.827	-0.071	-0.607	-0.207	2.05457	-1.005	Down
##	1200	2005	-1.005	0.297	0.827	-0.071	-0.607	2.19701	1.496	Up
##	1201	2005	1.496	-1.005	0.297	0.827	-0.071	2.70359	-1.502	Down
##	1202	2005	-1.502	1.496	-1.005	0.297	0.827	2.61725	0.152	Up
##	1203	2005	0.152	-1.502	1.496	-1.005	0.297	2.47092	1.678	Up
##	1204	2005	1.678	0.152	-1.502	1.496	-1.005	2.19779	-0.237	Down
##	1205	2005	-0.237	1.678	0.152	-1.502	1.496	2.31247	-0.431	Down
##	1206	2005	-0.431	-0.237	1.678	0.152	-1.502	2.46775	-1.048	Down
##	1207	2005	-1.048	-0.431	-0.237	1.678	0.152	2.39537	1.655	Up
##	1208	2005	1.655	-1.048	-0.431	-0.237	1.678	2.37940	0.718	Up
##	1209	2005	0.718	1.655	-1.048	-0.431	-0.237	2.56747	-0.352	Down
##	1210	2005	-0.352	0.718	1.655	-1.048	-0.431	2.45785	0.998	Up
##	1211	2005	0.998	-0.352	0.718	1.655	-1.048	2.64809	0.426	Up
##	1212	2005	0.426	0.998	-0.352	0.718	1.655	2.71663	0.016	Up
##	1213	2005	0.016	0.426	0.998	-0.352	0.718	2.05051	0.219	Up
##	1214	2005	0.219	0.016	0.426	0.998	-0.352	1.98758	-0.345	Down
##	1215	2005	-0.345	0.219	0.016	0.426	0.998	1.96505	0.169	Up
##	1216	2005	0.169	-0.345	0.219	0.016	0.426	2.21446	0.845	Up
##	1217	2005	0.845	0.169	-0.345	0.219	0.016	2.37846	0.305	Up
##	1218	2005	0.305	0.845	0.169	-0.345	0.219	1.77314	-0.078	Down
##	1219	2005	-0.078	0.305	0.845	0.169	-0.345	1.89978	-0.385	Down
##	1220	2005	-0.385	-0.078	0.305	0.845	0.169	2.35937	0.179	Up
##	1221	2005	0.179	-0.385	-0.078	0.305	0.845	2.12158	0.941	Up
##	1222	2005	0.941	0.179	-0.385	-0.078	0.305	2.29804	0.440	Up
##	1223	2005	0.440	0.941	0.179	-0.385	-0.078	2.45329	0.527	Up
##	1224	2005	0.527	0.440	0.941	0.179	-0.385	2.11735	0.508	Up
##	1225	2005	0.508	0.527	0.440	0.941	0.179	2.29142	0.347	Up
##	1226	2005	0.347	0.508	0.527	0.440	0.941	1.98540	0.209	Up
##	1227	2005	0.209	0.347	0.508	0.527	0.440	0.72494	-0.851	Down
##	1228	2005	-0.851	0.209	0.347	0.508	0.527	2.01690	0.002	Up
##	1229	2005	0.002	-0.851	0.209	0.347	0.508	2.26834	-0.636	Down
##	1230	2005	-0.636	0.002	-0.851	0.209	0.347	2.37469	1.216	Up
##	1231	2005	1.216	-0.636	0.002	-0.851	0.209	2.61483	0.032	Up
##	1232	2005	0.032	1.216	-0.636	0.002	-0.851	2.12558	-0.236	Down
##	1233	2005	-0.236	0.032	1.216	-0.636	0.002	2.32584	0.128	Up
##	1234	2005	0.128	-0.236	0.032	1.216	-0.636	2.11074	-0.501	Down
##	1235	2005	-0.501	0.128	-0.236	0.032	1.216	2.09383	-0.122	Down
##	1236	2005	-0.122	-0.501	0.128	-0.236	0.032	2.17830	0.281	Up
##	1237	2005	0.281	-0.122	-0.501	0.128	-0.236	1.89629	0.084	Up
##	1238	2005	0.084	0.281	-0.122	-0.501	0.128	1.87655	0.555	Up
##	1239	2005	0.555	0.084	0.281	-0.122	-0.501	2.39002	0.419	Up
##	1240	2005	0.419	0.555	0.084	0.281	-0.122	2.14552	-0.141	Down
##	1241	2005	-0.141	0.419	0.555	0.084	0.281	2.18059	-0.285	Down
##	1242	2005	-0.285	-0.141	0.419	0.555	0.084	2.58419	-0.584	Down

```
## 1243 2005 -0.584 -0.285 -0.141 0.419 0.555 2.20881 -0.024 Down
## 1244 2005 -0.024 -0.584 -0.285 -0.141 0.419 1.99669 0.252 Up
## 1245 2005 0.252 -0.024 -0.584 -0.285 -0.141 2.06517 0.422 Up
## 1246 2005 0.422 0.252 -0.024 -0.584 -0.285 1.88850 0.043 Up
## 1247 2005 0.043 0.422 0.252 -0.024 -0.584 1.28581 -0.955 Down
## 1248 2005 -0.955 0.043 0.422 0.252 -0.024 1.54047 0.130 Up
## 1249 2005 0.130 -0.955 0.043 0.422 0.252 1.42236 -0.298 Down
## 1250 2005 -0.298 0.130 -0.955 0.043 0.422 1.38254 -0.489 Down
```

```
help(Smarket)
```

```
dim(Smarket)
```

```
## [1] 1250 9
```

```
summary(Smarket)
```

```
##      Year      Lag1      Lag2      Lag3
## Min.   :2001   Min.   :-4.922000   Min.   :-4.922000   Min.   :-4.922000
## 1st Qu.:2002   1st Qu.: -0.639500   1st Qu.: -0.639500   1st Qu.: -0.640000
## Median :2003   Median : 0.039000   Median : 0.039000   Median : 0.038500
## Mean   :2003   Mean   : 0.003834   Mean   : 0.003919   Mean   : 0.001716
## 3rd Qu.:2004   3rd Qu.: 0.596750   3rd Qu.: 0.596750   3rd Qu.: 0.596750
## Max.   :2005   Max.   : 5.733000   Max.   : 5.733000   Max.   : 5.733000
##      Lag4      Lag5      Volume      Today
## Min.   :-4.922000   Min.   :-4.92200   Min.   :0.3561   Min.   :-4.922000
## 1st Qu.: -0.640000   1st Qu.: -0.64000   1st Qu.:1.2574   1st Qu.: -0.639500
## Median : 0.038500   Median : 0.03850   Median :1.4229   Median : 0.038500
## Mean   : 0.001636   Mean   : 0.00561   Mean   :1.4783   Mean   : 0.003138
## 3rd Qu.: 0.596750   3rd Qu.: 0.59700   3rd Qu.:1.6417   3rd Qu.: 0.596750
## Max.   : 5.733000   Max.   : 5.73300   Max.   :3.1525   Max.   : 5.733000
## Direction
## Down:602
## Up :648
##
##
##
```

```
# glm() generalized linear model
```

```
glm.fits <- glm(Direction~Lag1+Lag2+Lag3+Lag4+Lag5+Volume, data=Smarket,
family=binomial())
```

```
summary(glm.fits)
```

```
##
## Call:
## glm(formula = Direction ~ Lag1 + Lag2 + Lag3 + Lag4 + Lag5 +
##      Volume, family = binomial(), data = Smarket)
##
## Deviance Residuals:
```

```

##      Min      1Q  Median      3Q      Max
## -1.446 -1.203   1.065   1.145   1.326
##
## Coefficients:
##              Estimate Std. Error z value Pr(>|z|)
## (Intercept) -0.126000   0.240736  -0.523   0.601
## Lag1        -0.073074   0.050167  -1.457   0.145
## Lag2        -0.042301   0.050086  -0.845   0.398
## Lag3         0.011085   0.049939   0.222   0.824
## Lag4         0.009359   0.049974   0.187   0.851
## Lag5         0.010313   0.049511   0.208   0.835
## Volume       0.135441   0.158360   0.855   0.392
##
## (Dispersion parameter for binomial family taken to be 1)
##
##      Null deviance: 1731.2  on 1249  degrees of freedom
## Residual deviance: 1727.6  on 1243  degrees of freedom
## AIC: 1741.6
##
## Number of Fisher Scoring iterations: 3

predict(glm.fits, type = "response")[1:10] > 0.5 # 측정한 확률값이 나온다.

##      1      2      3      4      5      6      7      8      9     10
## TRUE FALSE FALSE  TRUE  TRUE  TRUE FALSE  TRUE  TRUE FALSE

contrasts(Smarket$Direction)

##      Up
## Down  0
## Up    1

```