

# Fitness App

0.1

Generated by Doxygen 1.8.16



<b>1 Namespace Index</b>	<b>1</b>
1.1 Packages	1
<b>2 Hierarchical Index</b>	<b>3</b>
2.1 Class Hierarchy	3
<b>3 Class Index</b>	<b>5</b>
3.1 Class List	5
<b>4 File Index</b>	<b>9</b>
4.1 File List	9
<b>5 Namespace Documentation</b>	<b>11</b>
5.1 Package calc	11
5.2 Package data	11
5.3 Package driver	12
5.4 Package file_io	12
5.5 Package gui	12
5.6 Package handlers	13
5.7 Package menu	13
5.8 Package structs	14
5.9 Package tests	14
<b>6 Class Documentation</b>	<b>15</b>
6.1 data.Activity_Level Class Reference	15
6.1.1 Detailed Description	18
6.1.2 Constructor & Destructor Documentation	18
6.1.2.1 Activity_Level() [1/2]	18
6.1.2.2 Activity_Level() [2/2]	18
6.1.3 Member Function Documentation	18
6.1.3.1 COT()	19
6.1.3.2 IsBetween1_2()	19
6.2 calc.Barbell_Curl Class Reference	20
6.2.1 Constructor & Destructor Documentation	22
6.2.1.1 Barbell_Curl()	22
6.2.2 Member Function Documentation	22
6.2.2.1 FemaleStandard()	22
6.2.2.2 MaleStandard()	22
6.3 calc.Basal_Metabolic Class Reference	23
6.3.1 Detailed Description	25
6.3.2 Constructor & Destructor Documentation	25
6.3.2.1 Basal_Metabolic()	25
6.3.3 Member Function Documentation	25
6.3.3.1 Method()	25

6.4 gui.BaseScene Class Reference . . . . .	26
6.4.1 Constructor & Destructor Documentation . . . . .	28
6.4.1.1 BaseScene() . . . . .	28
6.4.2 Member Function Documentation . . . . .	28
6.4.2.1 display() . . . . .	28
6.4.2.2 getDriver() . . . . .	29
6.4.2.3 getScene() . . . . .	29
6.4.2.4 setScene() . . . . .	29
6.4.2.5 setup() . . . . .	30
6.4.3 Member Data Documentation . . . . .	30
6.4.3.1 driver . . . . .	30
6.4.3.2 scene . . . . .	30
6.5 calc.Bench_Press Class Reference . . . . .	31
6.5.1 Constructor & Destructor Documentation . . . . .	33
6.5.1.1 Bench_Press() . . . . .	33
6.5.2 Member Function Documentation . . . . .	33
6.5.2.1 FemaleStandard() . . . . .	33
6.5.2.2 MaleStandard() . . . . .	33
6.6 data.Benches Class Reference . . . . .	34
6.6.1 Detailed Description . . . . .	36
6.6.2 Constructor & Destructor Documentation . . . . .	36
6.6.2.1 Benches() [1/3] . . . . .	36
6.6.2.2 Benches() [2/3] . . . . .	36
6.6.2.3 Benches() [3/3] . . . . .	36
6.7 data.BF Class Reference . . . . .	37
6.7.1 Detailed Description . . . . .	39
6.7.2 Constructor & Destructor Documentation . . . . .	39
6.7.2.1 BF() [1/2] . . . . .	39
6.7.2.2 BF() [2/2] . . . . .	39
6.8 calc.BMI Class Reference . . . . .	39
6.8.1 Detailed Description . . . . .	42
6.8.2 Constructor & Destructor Documentation . . . . .	42
6.8.2.1 BMI() . . . . .	42
6.8.3 Member Function Documentation . . . . .	42
6.8.3.1 Method() . . . . .	42
6.9 handlers.BtnBack1Handler Class Reference . . . . .	43
6.9.1 Constructor & Destructor Documentation . . . . .	45
6.9.1.1 BtnBack1Handler() . . . . .	45
6.9.2 Member Function Documentation . . . . .	45
6.9.2.1 handle() . . . . .	45
6.9.3 Member Data Documentation . . . . .	45
6.9.3.1 driver . . . . .	45

6.10 handlers.BtnBackHandler Class Reference . . . . .	46
6.10.1 Constructor & Destructor Documentation . . . . .	48
6.10.1.1 BtnBackHandler() . . . . .	48
6.10.2 Member Function Documentation . . . . .	48
6.10.2.1 handle() . . . . .	48
6.10.3 Member Data Documentation . . . . .	48
6.10.3.1 driver . . . . .	48
6.11 handlers.BtnLoginHandler Class Reference . . . . .	49
6.11.1 Constructor & Destructor Documentation . . . . .	51
6.11.1.1 BtnLoginHandler() . . . . .	51
6.11.2 Member Function Documentation . . . . .	51
6.11.2.1 handle() . . . . .	51
6.11.3 Member Data Documentation . . . . .	51
6.11.3.1 driver . . . . .	51
6.12 handlers.BtnNewUserHandler Class Reference . . . . .	52
6.12.1 Constructor & Destructor Documentation . . . . .	54
6.12.1.1 BtnNewUserHandler() . . . . .	54
6.12.2 Member Function Documentation . . . . .	54
6.12.2.1 handle() . . . . .	54
6.12.3 Member Data Documentation . . . . .	54
6.12.3.1 driver . . . . .	54
6.13 handlers.BtnQuitHandler Class Reference . . . . .	55
6.13.1 Member Function Documentation . . . . .	56
6.13.1.1 handle() . . . . .	56
6.14 handlers.BtnStartHandler Class Reference . . . . .	56
6.14.1 Constructor & Destructor Documentation . . . . .	58
6.14.1.1 BtnStartHandler() . . . . .	58
6.14.2 Member Function Documentation . . . . .	58
6.14.2.1 handle() . . . . .	58
6.14.3 Member Data Documentation . . . . .	58
6.14.3.1 driver . . . . .	58
6.15 handlers.BtnTLiftHandler Class Reference . . . . .	59
6.15.1 Constructor & Destructor Documentation . . . . .	61
6.15.1.1 BtnTLiftHandler() . . . . .	61
6.15.2 Member Function Documentation . . . . .	61
6.15.2.1 handle() . . . . .	61
6.15.3 Member Data Documentation . . . . .	61
6.15.3.1 driver . . . . .	61
6.16 handlers.BtnTrackHandler Class Reference . . . . .	62
6.16.1 Constructor & Destructor Documentation . . . . .	64
6.16.1.1 BtnTrackHandler() . . . . .	64
6.16.2 Member Function Documentation . . . . .	64

6.16.2.1 handle()	64
6.16.3 Member Data Documentation	64
6.16.3.1 driver	64
6.17 handlers.BtnTWeightHandler Class Reference	65
6.17.1 Constructor & Destructor Documentation	67
6.17.1.1 BtnTWeightHandler()	67
6.17.2 Member Function Documentation	67
6.17.2.1 handle()	67
6.17.3 Member Data Documentation	67
6.17.3.1 driver	67
6.18 handlers.BtnUpdateHandler Class Reference	68
6.18.1 Constructor & Destructor Documentation	70
6.18.1.1 BtnUpdateHandler()	70
6.18.2 Member Function Documentation	70
6.18.2.1 handle()	70
6.18.3 Member Data Documentation	70
6.18.3.1 driver	70
6.19 handlers.BtnViewHandler Class Reference	71
6.19.1 Constructor & Destructor Documentation	73
6.19.1.1 BtnViewHandler()	73
6.19.2 Member Function Documentation	73
6.19.2.1 handle()	73
6.19.3 Member Data Documentation	73
6.19.3.1 driver	73
6.20 calc.Calc_Abstract Class Reference	74
6.20.1 Detailed Description	76
6.20.2 Constructor & Destructor Documentation	76
6.20.2.1 Calc_Abstract()	76
6.20.3 Member Function Documentation	77
6.20.3.1 Calc()	77
6.20.3.2 CC()	78
6.20.3.3 CT()	78
6.20.3.4 Method()	79
6.20.3.5 Result()	79
6.20.3.6 SE()	80
6.20.4 Member Data Documentation	81
6.20.4.1 heap	81
6.20.4.2 x	81
6.21 tests.dataTest Class Reference	82
6.21.1 Member Function Documentation	83
6.21.1.1 CheckInvalidSE()	83
6.21.1.2 CheckNegativeSE()	84

6.21.1.3 CheckNull()	84
6.21.1.4 CheckSE()	84
6.21.1.5 CheckType()	85
6.21.1.6 CheckUnits()	85
6.21.1.7 GCheckGet()	85
6.21.1.8 GCheckSE()	86
6.21.1.9 UCatchException()	86
6.21.1.10 UCheckNotNull()	86
6.21.1.11 UDTCheckNotNull()	87
6.21.1.12 UDTSearchUnits()	87
6.21.1.13 UDTSet()	87
6.21.1.14 UStringNonEmpty()	88
6.21.2 Member Data Documentation	88
6.21.2.1 delta	88
6.21.2.2 G	88
6.21.2.3 U	88
6.21.2.4 UDT	88
6.21.2.5 W	88
6.22 calc.Deadlift Class Reference	89
6.22.1 Constructor & Destructor Documentation	91
6.22.1.1 Deadlift()	91
6.22.2 Member Function Documentation	91
6.22.2.1 FemaleStandard()	91
6.22.2.2 MaleStandard()	91
6.23 data.Deadlifts Class Reference	92
6.23.1 Detailed Description	94
6.23.2 Constructor & Destructor Documentation	94
6.23.2.1 Deadlifts() [1/3]	94
6.23.2.2 Deadlifts() [2/3]	94
6.23.2.3 Deadlifts() [3/3]	94
6.24 calc.Display_Caloric Class Reference	95
6.24.1 Detailed Description	97
6.24.2 Constructor & Destructor Documentation	97
6.24.2.1 Display_Caloric()	97
6.24.3 Member Function Documentation	97
6.24.3.1 Method()	97
6.25 menu.Editor Class Reference	98
6.25.1 Detailed Description	100
6.25.2 Constructor & Destructor Documentation	100
6.25.2.1 Editor()	100
6.25.3 Member Function Documentation	100
6.25.3.1 SelectMenu()	100

---

6.25.4 Member Data Documentation	101
6.25.4.1 Get_Data	101
6.25.4.2 Set_Data	101
6.26 menu.Editor_Abstract Class Reference	102
6.26.1 Detailed Description	104
6.26.2 Constructor & Destructor Documentation	104
6.26.2.1 Editor_Abstract()	104
6.26.3 Member Function Documentation	104
6.26.3.1 Menu_Main()	104
6.26.4 Member Data Documentation	105
6.26.4.1 tools	105
6.27 menu.Editor_Get Class Reference	106
6.27.1 Detailed Description	108
6.27.2 Constructor & Destructor Documentation	108
6.27.2.1 Editor_Get()	108
6.27.3 Member Function Documentation	108
6.27.3.1 GetData_String()	108
6.27.3.2 SelectMenu()	109
6.28 menu.Editor_Set Class Reference	109
6.28.1 Detailed Description	112
6.28.2 Constructor & Destructor Documentation	112
6.28.2.1 Editor_Set()	112
6.28.3 Member Function Documentation	112
6.28.3.1 SaveProgress()	112
6.28.3.2 SelectMenu()	113
6.29 gui.EighthScene Class Reference	114
6.29.1 Constructor & Destructor Documentation	116
6.29.1.1 EighthScene()	116
6.29.2 Member Function Documentation	116
6.29.2.1 setup()	116
6.30 calc.FFMI Class Reference	117
6.30.1 Detailed Description	119
6.30.2 Constructor & Destructor Documentation	119
6.30.2.1 FFMI()	119
6.30.3 Member Function Documentation	119
6.30.3.1 Method()	119
6.31 gui.FifthScene Class Reference	120
6.31.1 Constructor & Destructor Documentation	122
6.31.1.1 FifthScene()	122
6.31.2 Member Function Documentation	122
6.31.2.1 setup()	122
6.32 tests.file_ioTest Class Reference	123

---



6.32.1 Member Function Documentation	124
6.32.1.1 CleanUp()	124
6.32.1.2 UDTRetrieve()	124
6.32.1.3 UDTSet()	125
6.32.2 Member Data Documentation	125
6.32.2.1 U	125
6.32.2.2 UDT	125
6.33 gui.FirstScene Class Reference	126
6.33.1 Constructor & Destructor Documentation	128
6.33.1.1 FirstScene()	128
6.33.2 Member Function Documentation	128
6.33.2.1 setup()	128
6.34 menu.Fitness Class Reference	129
6.34.1 Detailed Description	131
6.34.2 Constructor & Destructor Documentation	131
6.34.2.1 Fitness()	131
6.34.3 Member Function Documentation	132
6.34.3.1 SelectMenu()	132
6.34.4 Member Data Documentation	132
6.34.4.1 Basal_Metabolic	132
6.34.4.2 BMI	132
6.34.4.3 Display_Caloric	133
6.34.4.4 Editor	133
6.34.4.5 FFMI	133
6.34.4.6 Lifting_Stats	133
6.34.4.7 VO2_Max	133
6.35 driver.FormProjectDriver Class Reference	134
6.35.1 Member Function Documentation	136
6.35.1.1 getUserdata()	136
6.35.1.2 getUserdataCalc()	136
6.35.1.3 main()	136
6.35.1.4 setScene()	137
6.35.1.5 start()	137
6.35.2 Member Data Documentation	137
6.35.2.1 stage	137
6.35.2.2 userdata	137
6.35.2.3 userdataCalc	137
6.36 gui.FourthScene Class Reference	138
6.36.1 Constructor & Destructor Documentation	140
6.36.1.1 FourthScene()	140
6.36.2 Member Function Documentation	140
6.36.2.1 setup()	140

6.37 data.Gender Class Reference	141
6.37.1 Detailed Description	143
6.37.2 Constructor & Destructor Documentation	143
6.37.2.1 Gender() [1/2]	143
6.37.2.2 Gender() [2/2]	143
6.37.3 Member Function Documentation	143
6.37.3.1 COT()	143
6.37.3.2 G1()	144
6.38 data.Height Class Reference	145
6.38.1 Detailed Description	147
6.38.2 Constructor & Destructor Documentation	147
6.38.2.1 Height() [1/2]	147
6.38.2.2 Height() [2/2]	147
6.39 menu.Home Class Reference	147
6.39.1 Detailed Description	150
6.39.2 Constructor & Destructor Documentation	150
6.39.2.1 Home()	150
6.39.3 Member Function Documentation	150
6.39.3.1 SelectMenu()	150
6.39.4 Member Data Documentation	151
6.39.4.1 Track_Fitness	151
6.39.4.2 View_Insights	151
6.40 data.Info Class Reference	152
6.40.1 Detailed Description	154
6.40.2 Constructor & Destructor Documentation	154
6.40.2.1 Info() [1/2]	154
6.40.2.2 Info() [2/2]	154
6.41 calc.Lifting_Abstract Class Reference	154
6.41.1 Detailed Description	157
6.41.2 Constructor & Destructor Documentation	157
6.41.2.1 Lifting_Abstract()	157
6.41.3 Member Function Documentation	157
6.41.3.1 FemaleStandard()	158
6.41.3.2 MaleStandard()	158
6.41.3.3 Method()	158
6.41.3.4 WeightMessage()	159
6.41.4 Member Data Documentation	160
6.41.4.1 gender	160
6.41.4.2 rep_weight	160
6.41.4.3 weight	160
6.42 menu.Lifting_Stats Class Reference	161
6.42.1 Constructor & Destructor Documentation	163

6.42.1.1 Lifting_Stats()	163
6.42.2 Member Function Documentation	163
6.42.2.1 SelectMenu()	163
6.42.3 Member Data Documentation	164
6.42.3.1 BarbellCurl	164
6.42.3.2 BenchPress	164
6.42.3.3 Deadlift	164
6.42.3.4 ShoulderPress	164
6.42.3.5 Squat	164
6.43 data.Lifts Class Reference	165
6.43.1 Detailed Description	167
6.43.2 Constructor & Destructor Documentation	167
6.43.2.1 Lifts() [1/3]	167
6.43.2.2 Lifts() [2/3]	167
6.43.2.3 Lifts() [3/3]	168
6.43.3 Member Function Documentation	168
6.43.3.1 GetWeight()	168
6.43.3.2 GetWeightUnits()	169
6.43.3.3 SetWeight()	169
6.43.4 Member Data Documentation	169
6.43.4.1 weight	170
6.44 menu.Main Class Reference	170
6.44.1 Detailed Description	170
6.44.2 Member Function Documentation	170
6.44.2.1 main()	171
6.45 menu.Menu_Abstract Class Reference	171
6.45.1 Detailed Description	173
6.45.2 Constructor & Destructor Documentation	173
6.45.2.1 Menu_Abstract()	173
6.45.3 Member Function Documentation	174
6.45.3.1 AddMenu_Entry()	174
6.45.3.2 ClearScreen()	174
6.45.3.3 GetMenu_Entry()	175
6.45.3.4 GetMenu_List()	176
6.45.3.5 GetMenu_Title()	176
6.45.3.6 Menu_Main()	177
6.45.3.7 MenuFlush()	177
6.45.3.8 SelectMenu()	178
6.45.3.9 SelectMenu_Bool()	179
6.45.3.10 SelectMenu_Scanner()	180
6.45.3.11 SetMenu_Title()	180
6.45.4 Member Data Documentation	181

6.45.4.1 Menu_Exit . . . . .	181
6.45.4.2 Menu_List . . . . .	181
6.45.4.3 Menu_Title . . . . .	181
6.46 menu.Menu_Entry Class Reference . . . . .	182
6.46.1 Detailed Description . . . . .	182
6.46.2 Constructor & Destructor Documentation . . . . .	182
6.46.2.1 Menu_Entry() . . . . .	182
6.46.3 Member Function Documentation . . . . .	183
6.46.3.1 GetMenu_Entry() . . . . .	183
6.46.4 Member Data Documentation . . . . .	183
6.46.4.1 Entry . . . . .	183
6.47 menu.Profiler Class Reference . . . . .	183
6.47.1 Constructor & Destructor Documentation . . . . .	184
6.47.1.1 Profiler() . . . . .	184
6.48 data.Resting_BPM Class Reference . . . . .	185
6.48.1 Constructor & Destructor Documentation . . . . .	187
6.48.1.1 Resting_BPM() [1/2] . . . . .	187
6.48.1.2 Resting_BPM() [2/2] . . . . .	187
6.49 structs.SDouble Class Reference . . . . .	187
6.49.1 Detailed Description . . . . .	190
6.49.2 Constructor & Destructor Documentation . . . . .	190
6.49.2.1 SDouble() [1/2] . . . . .	190
6.49.2.2 SDouble() [2/2] . . . . .	190
6.49.3 Member Function Documentation . . . . .	191
6.49.3.1 CC() . . . . .	191
6.49.3.2 CT() . . . . .	192
6.49.3.3 SE() . . . . .	192
6.49.4 Member Data Documentation . . . . .	193
6.49.4.1 heap . . . . .	193
6.50 gui.SecondScene Class Reference . . . . .	194
6.50.1 Constructor & Destructor Documentation . . . . .	196
6.50.1.1 SecondScene() . . . . .	196
6.50.2 Member Function Documentation . . . . .	196
6.50.2.1 setup() . . . . .	196
6.51 gui.SeventhScene Class Reference . . . . .	197
6.51.1 Constructor & Destructor Documentation . . . . .	199
6.51.1.1 SeventhScene() . . . . .	199
6.51.2 Member Function Documentation . . . . .	199
6.51.2.1 setup() . . . . .	199
6.52 calc.Shoulder_Press Class Reference . . . . .	200
6.52.1 Constructor & Destructor Documentation . . . . .	202
6.52.1.1 Shoulder_Press() . . . . .	202

6.52.2 Member Function Documentation	202
6.52.2.1 FemaleStandard()	202
6.52.2.2 MaleStandard()	202
6.53 structs.SInt Class Reference	203
6.53.1 Detailed Description	205
6.53.2 Constructor & Destructor Documentation	205
6.53.2.1 SInt() [1/2]	205
6.53.2.2 SInt() [2/2]	205
6.53.3 Member Function Documentation	206
6.53.3.1 CC()	206
6.53.3.2 CT()	206
6.53.3.3 SE()	207
6.53.4 Member Data Documentation	207
6.53.4.1 heap	208
6.54 gui.SixthScene Class Reference	208
6.54.1 Constructor & Destructor Documentation	210
6.54.1.1 SixthScene()	210
6.54.2 Member Function Documentation	210
6.54.2.1 setup()	210
6.55 calc.Squat Class Reference	211
6.55.1 Constructor & Destructor Documentation	213
6.55.1.1 Squat()	213
6.55.2 Member Function Documentation	213
6.55.2.1 FemaleStandard()	213
6.55.2.2 MaleStandard()	213
6.56 data.Squats Class Reference	214
6.56.1 Constructor & Destructor Documentation	216
6.56.1.1 Squats() [1/3]	216
6.56.1.2 Squats() [2/3]	216
6.56.1.3 Squats() [3/3]	216
6.57 structs.SString Class Reference	216
6.57.1 Detailed Description	219
6.57.2 Constructor & Destructor Documentation	219
6.57.2.1 SString() [1/2]	219
6.57.2.2 SString() [2/2]	219
6.57.3 Member Function Documentation	220
6.57.3.1 CC()	220
6.57.3.2 CT()	220
6.57.3.3 SE()	221
6.57.4 Member Data Documentation	222
6.57.4.1 heap	222
6.58 data.Steps Class Reference	223

6.58.1 Constructor & Destructor Documentation	225
6.58.1.1 Steps() [1/2]	225
6.58.1.2 Steps() [2/2]	225
6.59 structs.Struct Class Reference	225
6.59.1 Detailed Description	227
6.59.2 Constructor & Destructor Documentation	227
6.59.2.1 Struct() [1/2]	227
6.59.2.2 Struct() [2/2]	228
6.59.3 Member Function Documentation	229
6.59.3.1 CC()	229
6.59.3.2 COT()	229
6.59.3.3 CT()	230
6.59.3.4 GetEntry()	230
6.59.3.5 GetLock()	231
6.59.3.6 GetType()	232
6.59.3.7 GetUnits()	232
6.59.3.8 Is0_1()	232
6.59.3.9 IsNot0()	233
6.59.3.10 IsPositive()	233
6.59.3.11 SE()	234
6.59.3.12 SetEntry()	234
6.59.3.13 SetLock()	235
6.59.3.14 SetType()	235
6.59.3.15 SetUnits()	236
6.59.4 Member Data Documentation	237
6.59.4.1 Struct_Entry	237
6.59.4.2 Struct_Lock	237
6.59.4.3 Struct_Type	237
6.59.4.4 Struct_Units	237
6.60 gui.ThirdScene Class Reference	238
6.60.1 Constructor & Destructor Documentation	240
6.60.1.1 ThirdScene()	240
6.60.2 Member Function Documentation	240
6.60.2.1 setup()	240
6.61 menu.User_Select Class Reference	241
6.61.1 Constructor & Destructor Documentation	243
6.61.1.1 User_Select()	243
6.61.2 Member Function Documentation	243
6.61.2.1 GenerateList()	243
6.61.2.2 SelectMenu()	244
6.62 data.UserData Class Reference	245
6.62.1 Constructor & Destructor Documentation	246

6.62.1.1 UserData()	246
6.62.2 Member Function Documentation	246
6.62.2.1 BoolData_Type()	247
6.62.2.2 GetData()	247
6.62.2.3 GetData_Entry() [1/2]	248
6.62.2.4 GetData_Entry() [2/2]	248
6.62.2.5 GetData_List()	249
6.62.2.6 GetData_Type()	249
6.62.2.7 GetData_Units()	250
6.62.2.8 GetData_Var()	250
6.62.2.9 Init_Data()	251
6.62.2.10 SearchData_Type()	251
6.62.2.11 SetEntry()	252
6.62.2.12 SetEntry_Direct()	252
6.62.3 Member Data Documentation	253
6.62.3.1 ArrayData	253
6.62.3.2 d1	253
6.62.3.3 d2	253
6.62.3.4 d3	253
6.62.3.5 d4	253
6.62.3.6 i1	253
6.62.3.7 i2	253
6.62.3.8 l1	254
6.62.3.9 l2	254
6.62.3.10 l3	254
6.62.3.11 List_Double	254
6.62.3.12 List_Int	254
6.62.3.13 List_Lifts	254
6.62.3.14 List_String	254
6.62.3.15 s1	254
6.62.3.16 s2	255
6.62.3.17 UserNew	255
6.63 calc.UserData_Calc Class Reference	255
6.63.1 Detailed Description	257
6.63.2 Constructor & Destructor Documentation	257
6.63.2.1 UserData_Calc()	257
6.63.3 Member Function Documentation	258
6.63.3.1 GetBC()	258
6.63.3.2 GetBM()	259
6.63.3.3 GetBMI()	259
6.63.3.4 GetBP()	260
6.63.3.5 GetDC()	260

6.63.3.6 GetDL()	261
6.63.3.7 GetFFMI()	261
6.63.3.8 GetSP()	262
6.63.3.9 GetSQ()	262
6.63.3.10 GetVO2_Max()	263
6.63.3.11 Init_Data()	263
6.63.4 Member Data Documentation	263
6.63.4.1 ArrayCalc	263
6.63.4.2 BC	263
6.63.4.3 BM	264
6.63.4.4 BMI	264
6.63.4.5 BP	264
6.63.4.6 DC	264
6.63.4.7 DL	264
6.63.4.8 FFMI	264
6.63.4.9 List_Calc	265
6.63.4.10 SP	265
6.63.4.11 SQ	265
6.63.4.12 VO2_Max	265
6.64 file_io.UserData_File Class Reference	265
6.64.1 Member Function Documentation	266
6.64.1.1 SaveData()	266
6.64.1.2 SetData()	267
6.64.2 Member Data Documentation	267
6.64.2.1 path	267
6.64.2.2 pathname	267
6.65 data.UserData_Tools Class Reference	268
6.65.1 Constructor & Destructor Documentation	269
6.65.1.1 UserData_Tools()	269
6.65.2 Member Function Documentation	269
6.65.2.1 BoolData_Type()	269
6.65.2.2 Get()	270
6.65.2.3 Get_Interactive()	271
6.65.2.4 GetData()	271
6.65.2.5 GetDataEntry()	272
6.65.2.6 GetType()	272
6.65.2.7 GetType_Interactive()	273
6.65.2.8 GetTypeList()	273
6.65.2.9 GetUnits()	274
6.65.2.10 GetUnits_Interactive()	274
6.65.2.11 SearchData_Type()	275
6.65.2.12 Set()	275



6.65.2.13 Set_Interactive()	276
6.65.3 Member Data Documentation	276
6.65.3.1 z	276
6.66 data.UserDataIndex Enum Reference	277
6.66.1 Constructor & Destructor Documentation	278
6.66.1.1 UserDataIndex()	278
6.66.2 Member Function Documentation	278
6.66.2.1 getIndex()	278
6.66.3 Member Data Documentation	278
6.66.3.1 ACTIVITY_LEVEL	278
6.66.3.2 BENCH	278
6.66.3.3 BODY_FAT	279
6.66.3.4 DEADLIFT	279
6.66.3.5 GENDER	279
6.66.3.6 HEIGHT	279
6.66.3.7 index	279
6.66.3.8 INFO	279
6.66.3.9 RESTING_BPM	279
6.66.3.10 SQUAT	279
6.66.3.11 STEPS	280
6.66.3.12 WEIGHT	280
6.67 file_io.UserList Class Reference	280
6.67.1 Member Function Documentation	280
6.67.1.1 GetUserList()	281
6.67.2 Member Data Documentation	281
6.67.2.1 pathname	281
6.68 calc.VO2_Max Class Reference	281
6.68.1 Detailed Description	284
6.68.2 Constructor & Destructor Documentation	284
6.68.2.1 VO2_Max()	284
6.68.3 Member Function Documentation	284
6.68.3.1 Method()	284
6.69 data.Weight Class Reference	285
6.69.1 Constructor & Destructor Documentation	287
6.69.1.1 Weight() [1/2]	287
6.69.1.2 Weight() [2/2]	287
<b>7 File Documentation</b>	<b>289</b>
7.1 /home/jamie/java/forms_project/src/lib/calc/Barbell_Curl.java File Reference	289
7.2 /home/jamie/java/forms_project/src/lib/calc/Basal_Metabolic.java File Reference	289
7.3 /home/jamie/java/forms_project/src/lib/calc/Bench_Press.java File Reference	289
7.4 /home/jamie/java/forms_project/src/lib/calc/BMI.java File Reference	290

7.5 /home/jamie/java/forms_project/src/lib/calc/Calc_Abstract.java File Reference . . . . .	290
7.6 /home/jamie/java/forms_project/src/lib/calc/Deadlift.java File Reference . . . . .	290
7.7 /home/jamie/java/forms_project/src/lib/calc/Display_Caloric.java File Reference . . . . .	290
7.8 /home/jamie/java/forms_project/src/lib/calc/FFMI.java File Reference . . . . .	291
7.9 /home/jamie/java/forms_project/src/lib/calc/Lifting_Abstract.java File Reference . . . . .	291
7.10 /home/jamie/java/forms_project/src/lib/calc/Shoulder_Press.java File Reference . . . . .	291
7.11 /home/jamie/java/forms_project/src/lib/calc/Squat.java File Reference . . . . .	291
7.12 /home/jamie/java/forms_project/src/lib/calc/UserData_Calc.java File Reference . . . . .	292
7.13 /home/jamie/java/forms_project/src/lib/calc/VO2_Max.java File Reference . . . . .	292
7.14 /home/jamie/java/forms_project/src/lib/data/Activity_Level.java File Reference . . . . .	292
7.15 /home/jamie/java/forms_project/src/lib/data/Benches.java File Reference . . . . .	293
7.16 /home/jamie/java/forms_project/src/lib/data/BF.java File Reference . . . . .	293
7.17 /home/jamie/java/forms_project/src/lib/data/Deadlifts.java File Reference . . . . .	293
7.18 /home/jamie/java/forms_project/src/lib/data/Gender.java File Reference . . . . .	293
7.19 /home/jamie/java/forms_project/src/lib/data/Height.java File Reference . . . . .	294
7.20 /home/jamie/java/forms_project/src/lib/data/Info.java File Reference . . . . .	294
7.21 /home/jamie/java/forms_project/src/lib/data/Lifts.java File Reference . . . . .	294
7.22 /home/jamie/java/forms_project/src/lib/data/Resting_BPM.java File Reference . . . . .	294
7.23 /home/jamie/java/forms_project/src/lib/data/Squats.java File Reference . . . . .	295
7.24 /home/jamie/java/forms_project/src/lib/data/Steps.java File Reference . . . . .	295
7.25 /home/jamie/java/forms_project/src/lib/data/UserData.java File Reference . . . . .	295
7.26 /home/jamie/java/forms_project/src/lib/data/UserData_Tools.java File Reference . . . . .	295
7.27 /home/jamie/java/forms_project/src/lib/data/UserDataIndex.java File Reference . . . . .	296
7.28 /home/jamie/java/forms_project/src/lib/data/Weight.java File Reference . . . . .	296
7.29 /home/jamie/java/forms_project/src/lib/file_io/UserData_File.java File Reference . . . . .	296
7.30 /home/jamie/java/forms_project/src/lib/file_io/UserList.java File Reference . . . . .	296
7.31 /home/jamie/java/forms_project/src/lib/gui/driver/FormProjectDriver.java File Reference . . . . .	297
7.32 /home/jamie/java/forms_project/src/lib/gui/gui/BaseScene.java File Reference . . . . .	297
7.33 /home/jamie/java/forms_project/src/lib/gui/gui/EighthScene.java File Reference . . . . .	297
7.34 /home/jamie/java/forms_project/src/lib/gui/gui/FifthScene.java File Reference . . . . .	297
7.35 /home/jamie/java/forms_project/src/lib/gui/gui/FirstScene.java File Reference . . . . .	298
7.36 /home/jamie/java/forms_project/src/lib/gui/gui/FourthScene.java File Reference . . . . .	298
7.37 /home/jamie/java/forms_project/src/lib/gui/gui/SecondScene.java File Reference . . . . .	298
7.38 /home/jamie/java/forms_project/src/lib/gui/gui/SeventhScene.java File Reference . . . . .	298
7.39 /home/jamie/java/forms_project/src/lib/gui/gui/SixthScene.java File Reference . . . . .	299
7.40 /home/jamie/java/forms_project/src/lib/gui/gui/ThirdScene.java File Reference . . . . .	299
7.41 /home/jamie/java/forms_project/src/lib/gui/handlers/BtnBack1Handler.java File Reference . . . . .	299
7.42 /home/jamie/java/forms_project/src/lib/gui/handlers/BtnBackHandler.java File Reference . . . . .	300
7.43 /home/jamie/java/forms_project/src/lib/gui/handlers/BtnLoginHandler.java File Reference . . . . .	300
7.44 /home/jamie/java/forms_project/src/lib/gui/handlers/BtnNewUserHandler.java File Reference . . . . .	300
7.45 /home/jamie/java/forms_project/src/lib/gui/handlers/BtnQuitHandler.java File Reference . . . . .	300
7.46 /home/jamie/java/forms_project/src/lib/gui/handlers/BtnStartHandler.java File Reference . . . . .	301

7.47 /home/jamie/java/forms_project/src/lib/gui/handlers/BtnTLiftHandler.java File Reference . . . . .	301
7.48 /home/jamie/java/forms_project/src/lib/gui/handlers/BtnTrackHandler.java File Reference . . . . .	301
7.49 /home/jamie/java/forms_project/src/lib/gui/handlers/BtnTWeightHandler.java File Reference . . . . .	302
7.50 /home/jamie/java/forms_project/src/lib/gui/handlers/BtnUpdateHandler.java File Reference . . . . .	302
7.51 /home/jamie/java/forms_project/src/lib/gui/handlers/BtnViewHandler.java File Reference . . . . .	302
7.52 /home/jamie/java/forms_project/src/lib/menu/Editor.java File Reference . . . . .	302
7.53 /home/jamie/java/forms_project/src/lib/menu/Editor_Abstract.java File Reference . . . . .	303
7.54 /home/jamie/java/forms_project/src/lib/menu/Editor_Get.java File Reference . . . . .	303
7.55 /home/jamie/java/forms_project/src/lib/menu/Editor_Set.java File Reference . . . . .	303
7.56 /home/jamie/java/forms_project/src/lib/menu/Fitness.java File Reference . . . . .	304
7.57 /home/jamie/java/forms_project/src/lib/menu/Home.java File Reference . . . . .	304
7.58 /home/jamie/java/forms_project/src/lib/menu/Lifting_Stats.java File Reference . . . . .	304
7.59 /home/jamie/java/forms_project/src/lib/menu/Main.java File Reference . . . . .	304
7.60 /home/jamie/java/forms_project/src/lib/menu/Menu_Abstract.java File Reference . . . . .	305
7.61 /home/jamie/java/forms_project/src/lib/menu/Menu_Entry.java File Reference . . . . .	305
7.62 /home/jamie/java/forms_project/src/lib/menu/Profiler.java File Reference . . . . .	305
7.63 /home/jamie/java/forms_project/src/lib/menu/User_Select.java File Reference . . . . .	306
7.64 /home/jamie/java/forms_project/src/lib/structs/SDouble.java File Reference . . . . .	306
7.65 /home/jamie/java/forms_project/src/lib/structs/SInt.java File Reference . . . . .	306
7.66 /home/jamie/java/forms_project/src/lib/structs/SString.java File Reference . . . . .	306
7.67 /home/jamie/java/forms_project/src/lib/structs/Struct.java File Reference . . . . .	307
7.68 /home/jamie/java/forms_project/src/lib/tests/dataTest.java File Reference . . . . .	307
7.69 /home/jamie/java/forms_project/src/lib/tests/file_ioTest.java File Reference . . . . .	307

**Index****309**



# Chapter 1

## Namespace Index

### 1.1 Packages

Here are the packages with brief descriptions (if available):

<a href="#">calc</a>	11
<a href="#">data</a>	11
<a href="#">driver</a>	12
<a href="#">file_io</a>	12
<a href="#">gui</a>	12
<a href="#">handlers</a>	13
<a href="#">menu</a>	13
<a href="#">structs</a>	14
<a href="#">tests</a>	14



## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

gui.BaseScene . . . . .	26
gui.EighthScene . . . . .	114
gui.FifthScene . . . . .	120
gui.FirstScene . . . . .	126
gui.FourthScene . . . . .	138
gui.SecondScene . . . . .	194
gui.SeventhScene . . . . .	197
gui.SixthScene . . . . .	208
gui.ThirdScene . . . . .	238
tests.dataTest . . . . .	82
tests.file_ioTest . . . . .	123
menu.Main . . . . .	170
menu.Menu_Abstract . . . . .	171
menu.Editor . . . . .	98
menu.Editor_Abstract . . . . .	102
menu.Editor_Get . . . . .	106
menu.Editor_Set . . . . .	109
menu.Fitness . . . . .	129
menu.Home . . . . .	147
menu.Lifting_Stats . . . . .	161
menu.User_Select . . . . .	241
menu.Menu_Entry . . . . .	182
menu.Profiler . . . . .	183
structs.Struct . . . . .	225
calc.Calc_Abstract . . . . .	74
calc.Basal_Metabolic . . . . .	23
calc.BMI . . . . .	39
calc.Display_Caloric . . . . .	95
calc.FFMI . . . . .	117
calc.Lifting_Abstract . . . . .	154
calc.Barbell_Curl . . . . .	20
calc.Bench_Press . . . . .	31
calc.Deadlift . . . . .	89
calc.Shoulder_Press . . . . .	200

calc.Squat . . . . .	211
calc.VO2_Max . . . . .	281
structs.SDouble . . . . .	187
data.Activity_Level . . . . .	15
data.BF . . . . .	37
data.Height . . . . .	145
data.Weight . . . . .	285
structs.SInt . . . . .	203
data.Lifts . . . . .	165
data.Benches . . . . .	34
data.Deadlifts . . . . .	92
data.Squats . . . . .	214
data.Resting_BPM . . . . .	185
data.Steps . . . . .	223
structs.SString . . . . .	216
data.Gender . . . . .	141
data.Info . . . . .	152
data.UserData . . . . .	245
calc.UserData_Calc . . . . .	255
file_io.UserData_File . . . . .	265
data.UserData_Tools . . . . .	268
data.UserDataIndex . . . . .	277
file_io.UserList . . . . .	280
Application	
driver.FormProjectDriver . . . . .	134
EventHandler	
handlers.BtnBack1Handler . . . . .	43
handlers.BtnBackHandler . . . . .	46
handlers.BtnLoginHandler . . . . .	49
handlers.BtnNewUserHandler . . . . .	52
handlers.BtnQuitHandler . . . . .	55
handlers.BtnStartHandler . . . . .	56
handlers.BtnTLiftHandler . . . . .	59
handlers.BtnTrackHandler . . . . .	62
handlers.BtnTWeightHandler . . . . .	65
handlers.BtnUpdateHandler . . . . .	68
handlers.BtnViewHandler . . . . .	71



## Chapter 3

# Class Index

### 3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

<a href="#">data.Activity_Level</a>	
The class that holds <a href="#">Activity_Level</a> data	15
<a href="#">calc.Barbell_Curl</a>	20
<a href="#">calc.Basal_Metabolic</a>	
Calculates and returns Basal Metabolic values	23
<a href="#">gui.BaseScene</a>	26
<a href="#">calc.Bench_Press</a>	31
<a href="#">data.Benches</a>	
The class that holds <a href="#">Benches</a> data	34
<a href="#">data.BF</a>	
The class that holds <a href="#">BF</a> data	37
<a href="#">calc.BMI</a>	
Calculates and returns <a href="#">BMI</a> values	39
<a href="#">handlers.BtnBack1Handler</a>	43
<a href="#">handlers.BtnBackHandler</a>	46
<a href="#">handlers.BtnLoginHandler</a>	49
<a href="#">handlers.BtnNewUserHandler</a>	52
<a href="#">handlers.BtnQuitHandler</a>	55
<a href="#">handlers.BtnStartHandler</a>	56
<a href="#">handlers.BtnTLiftHandler</a>	59
<a href="#">handlers.BtnTrackHandler</a>	62
<a href="#">handlers.BtnTWeightHandler</a>	65
<a href="#">handlers.BtnUpdateHandler</a>	68
<a href="#">handlers.BtnViewHandler</a>	71
<a href="#">calc.Calc_Abstract</a>	
Contains abstract methods to calculate and return calculations	74
<a href="#">tests.dataTest</a>	82
<a href="#">calc.Deadlift</a>	89
<a href="#">data.Deadlifts</a>	
The class that holds <a href="#">Deadlifts</a> data	92
<a href="#">calc.Display_Caloric</a>	
Calculates and returns Display Caloric values	95
<a href="#">menu.Editor</a>	
The main menu for choosing either to get values or set values in the main program	98

<a href="#">menu.Editor_Abstract</a>	
This class extends the abstract class <a href="#">Menu_Abstract</a> , which provides the structure for editing and viewing the #UserData . . . . .	102
<a href="#">menu.Editor_Get</a>	
Class that provides a User Interface to <a href="#">Editor_Abstract</a> , specifically to get values . . . . .	106
<a href="#">menu.Editor_Set</a>	
Class that creates a Menu user interface to edit any #UserData values . . . . .	109
<a href="#">gui.EighthScene</a> . . . . .	114
<a href="#">calc.FFMI</a>	
Calculates and returns <a href="#">FFMI</a> values . . . . .	117
<a href="#">gui.FifthScene</a> . . . . .	120
<a href="#">tests.file_ioTest</a> . . . . .	123
<a href="#">gui.FirstScene</a> . . . . .	126
<a href="#">menu.Fitness</a>	
The Menu Interface for the <a href="#">Fitness</a> class . . . . .	129
<a href="#">driver.FormProjectDriver</a> . . . . .	134
<a href="#">gui.FourthScene</a> . . . . .	138
<a href="#">data.Gender</a>	
The class that holds the user's <a href="#">Gender</a> . . . . .	141
<a href="#">data.Height</a>	
The class that holds <a href="#">Height</a> data . . . . .	145
<a href="#">menu.Home</a>	
The <a href="#">Home</a> Menu interface . . . . .	147
<a href="#">data.Info</a>	
The class that holds the user's <a href="#">Info</a> . . . . .	152
<a href="#">calc.Lifting_Abstract</a>	
Calculates and returns Lifting Stats values . . . . .	154
<a href="#">menu.Lifting_Stats</a> . . . . .	161
<a href="#">data.Lifts</a>	
The abstract class that defines the lifts, using also the <a href="#">Weight</a> class as an object . . . . .	165
<a href="#">menu.Main</a>	
The main class that runs the TUI . . . . .	170
<a href="#">menu.Menu_Abstract</a>	
The template class that provides the skeleton menu interface . . . . .	171
<a href="#">menu.Menu_Entry</a>	
Class that provides the entry data structure . . . . .	182
<a href="#">menu.Profiler</a> . . . . .	183
<a href="#">data.Resting_BPM</a> . . . . .	185
<a href="#">structs.SDouble</a>	
The class that holds Double-typed data . . . . .	187
<a href="#">gui.SecondScene</a> . . . . .	194
<a href="#">gui.SeventhScene</a> . . . . .	197
<a href="#">calc.Shoulder_Press</a> . . . . .	200
<a href="#">structs.SInt</a>	
The class that holds Integer-typed data . . . . .	203
<a href="#">gui.SixthScene</a> . . . . .	208
<a href="#">calc.Squat</a> . . . . .	211
<a href="#">data.Squats</a> . . . . .	214
<a href="#">structs.SString</a>	
The class that holds String-typed data . . . . .	216
<a href="#">data.Steps</a> . . . . .	223
<a href="#">structs.Struct</a>	
Provides the foundational DataType and primitive methods for all various inputs . . . . .	225
<a href="#">gui.ThirdScene</a> . . . . .	238
<a href="#">menu.User_Select</a> . . . . .	241
<a href="#">data.UserData</a> . . . . .	245
<a href="#">calc.UserData_Calc</a>	
Class that stores all results of the calculations . . . . .	255

<a href="#">file_io.UserData_File</a>	265
<a href="#">data.UserData_Tools</a>	268
<a href="#">data.UserDataIndex</a>	277
<a href="#">file_io.UserList</a>	280
<a href="#">calc.VO2_Max</a>	
Calculates and returns VO2 Max values	281
<a href="#">data.Weight</a>	285



## Chapter 4

# File Index

### 4.1 File List

Here is a list of all files with brief descriptions:

/home/jamie/java/forms_project/src/lib/calc/Barbell_Curl.java	289
/home/jamie/java/forms_project/src/lib/calc/Basal_Metabolic.java	289
/home/jamie/java/forms_project/src/lib/calc/Bench_Press.java	289
/home/jamie/java/forms_project/src/lib/calc/BMI.java	290
/home/jamie/java/forms_project/src/lib/calc/Calc_Abstract.java	290
/home/jamie/java/forms_project/src/lib/calc/Deadlift.java	290
/home/jamie/java/forms_project/src/lib/calc/Display_Caloric.java	290
/home/jamie/java/forms_project/src/lib/calc/FFMI.java	291
/home/jamie/java/forms_project/src/lib/calc/Lifting_Abstract.java	291
/home/jamie/java/forms_project/src/lib/calc/Shoulder_Press.java	291
/home/jamie/java/forms_project/src/lib/calc/Squat.java	291
/home/jamie/java/forms_project/src/lib/calc/UserData_Calc.java	292
/home/jamie/java/forms_project/src/lib/calc/VO2_Max.java	292
/home/jamie/java/forms_project/src/lib/data/Activity_Level.java	292
/home/jamie/java/forms_project/src/lib/data/Benches.java	293
/home/jamie/java/forms_project/src/lib/data/BF.java	293
/home/jamie/java/forms_project/src/lib/data/Deadlifts.java	293
/home/jamie/java/forms_project/src/lib/data/Gender.java	293
/home/jamie/java/forms_project/src/lib/data/Height.java	294
/home/jamie/java/forms_project/src/lib/data/Info.java	294
/home/jamie/java/forms_project/src/lib/data/Lifts.java	294
/home/jamie/java/forms_project/src/lib/data/Resting_BPM.java	294
/home/jamie/java/forms_project/src/lib/data/Squats.java	295
/home/jamie/java/forms_project/src/lib/data/Steps.java	295
/home/jamie/java/forms_project/src/lib/data/UserData.java	295
/home/jamie/java/forms_project/src/lib/data/UserData_Tools.java	295
/home/jamie/java/forms_project/src/lib/data/UserDataIndex.java	296
/home/jamie/java/forms_project/src/lib/data/Weight.java	296
/home/jamie/java/forms_project/src/lib/file_io/UserData_File.java	296
/home/jamie/java/forms_project/src/lib/file_io/UserList.java	296
/home/jamie/java/forms_project/src/lib/gui/driver/FormProjectDriver.java	297
/home/jamie/java/forms_project/src/lib/gui/gui/BaseScene.java	297
/home/jamie/java/forms_project/src/lib/gui/gui/EighthScene.java	297
/home/jamie/java/forms_project/src/lib/gui/gui/FifthScene.java	297
/home/jamie/java/forms_project/src/lib/gui/gui/FirstScene.java	298

/home/jamie/java/forms_project/src/lib/gui/gui/FourthScene.java	298
/home/jamie/java/forms_project/src/lib/gui/gui/SecondScene.java	298
/home/jamie/java/forms_project/src/lib/gui/gui/SeventhScene.java	298
/home/jamie/java/forms_project/src/lib/gui/gui/SixthScene.java	299
/home/jamie/java/forms_project/src/lib/gui/gui/ThirdScene.java	299
/home/jamie/java/forms_project/src/lib/gui/handlers/BtnBack1Handler.java	299
/home/jamie/java/forms_project/src/lib/gui/handlers/BtnBackHandler.java	300
/home/jamie/java/forms_project/src/lib/gui/handlers/BtnLoginHandler.java	300
/home/jamie/java/forms_project/src/lib/gui/handlers/BtnNewUserHandler.java	300
/home/jamie/java/forms_project/src/lib/gui/handlers/BtnQuitHandler.java	300
/home/jamie/java/forms_project/src/lib/gui/handlers/BtnStartHandler.java	301
/home/jamie/java/forms_project/src/lib/gui/handlers/BtnTLiftHandler.java	301
/home/jamie/java/forms_project/src/lib/gui/handlers/BtnTrackHandler.java	301
/home/jamie/java/forms_project/src/lib/gui/handlers/BtnTWeightHandler.java	302
/home/jamie/java/forms_project/src/lib/gui/handlers/BtnUpdateHandler.java	302
/home/jamie/java/forms_project/src/lib/gui/handlers/BtnViewHandler.java	302
/home/jamie/java/forms_project/src/lib/menu/Editor.java	302
/home/jamie/java/forms_project/src/lib/menu/Editor_Abstract.java	303
/home/jamie/java/forms_project/src/lib/menu/Editor_Get.java	303
/home/jamie/java/forms_project/src/lib/menu/Editor_Set.java	303
/home/jamie/java/forms_project/src/lib/menu/Fitness.java	304
/home/jamie/java/forms_project/src/lib/menu/Home.java	304
/home/jamie/java/forms_project/src/lib/menu/Lifting_Stats.java	304
/home/jamie/java/forms_project/src/lib/menu/Main.java	304
/home/jamie/java/forms_project/src/lib/menu/Menu_Abstract.java	305
/home/jamie/java/forms_project/src/lib/menu/Menu_Entry.java	305
/home/jamie/java/forms_project/src/lib/menu/Profiler.java	305
/home/jamie/java/forms_project/src/lib/menu/User_Select.java	306
/home/jamie/java/forms_project/src/lib/structs/SDouble.java	306
/home/jamie/java/forms_project/src/lib/structs/SInt.java	306
/home/jamie/java/forms_project/src/lib/structs/SString.java	306
/home/jamie/java/forms_project/src/lib/structs/Struct.java	307
/home/jamie/java/forms_project/src/lib/tests/dataTest.java	307
/home/jamie/java/forms_project/src/lib/tests/file_ioTest.java	307

## Chapter 5

# Namespace Documentation

### 5.1 Package calc

#### Classes

- class [Barbell\\_Curl](#)
- class [Basal\\_Metabolic](#)  
*Calculates and returns Basal Metabolic values.*
- class [Bench\\_Press](#)
- class [BMI](#)  
*Calculates and returns [BMI](#) values.*
- class [Calc\\_Abstract](#)  
*Contains abstract methods to calculate and return calculations.*
- class [Deadlift](#)
- class [Display\\_Caloric](#)  
*Calculates and returns Display Caloric values.*
- class [FFMI](#)  
*Calculates and returns [FFMI](#) values.*
- class [Lifting\\_Abstract](#)  
*Calculates and returns Lifting Stats values.*
- class [Shoulder\\_Press](#)
- class [Squat](#)
- class [UserData\\_Calc](#)  
*Class that stores all results of the calculations.*
- class [VO2\\_Max](#)  
*Calculates and returns VO2 Max values.*

### 5.2 Package data

#### Classes

- class [Activity\\_Level](#)  
*The class that holds [Activity\\_Level](#) data.*
- class [Benches](#)

*The class that holds [Benches](#) data.*

- class [BF](#)

*The class that holds [BF](#) data.*

- class [Deadlifts](#)

*The class that holds [Deadlifts](#) data.*

- class [Gender](#)

*The class that holds the user's [Gender](#).*

- class [Height](#)

*The class that holds [Height](#) data.*

- class [Info](#)

*The class that holds the user's [Info](#).*

- class [Lifts](#)

*The abstract class that defines the lifts, using also the [Weight](#) class as an object.*

- class [Resting\\_BPM](#)
- class [Squats](#)
- class [Steps](#)
- class [UserData](#)
- class [UserData\\_Tools](#)
- enum [UserDataIndex](#)
- class [Weight](#)

## 5.3 Package driver

### Classes

- class [FormProjectDriver](#)

## 5.4 Package file\_io

### Classes

- class [UserData\\_File](#)
- class [UserList](#)

## 5.5 Package gui

### Classes

- class [BaseScene](#)
- class [EighthScene](#)
- class [FifthScene](#)
- class [FirstScene](#)
- class [FourthScene](#)
- class [SecondScene](#)
- class [SeventhScene](#)
- class [SixthScene](#)
- class [ThirdScene](#)



## 5.6 Package handlers

### Classes

- class [BtnBack1Handler](#)
- class [BtnBackHandler](#)
- class [BtnLoginHandler](#)
- class [BtnNewUserHandler](#)
- class [BtnQuitHandler](#)
- class [BtnStartHandler](#)
- class [BtnTLiftHandler](#)
- class [BtnTrackHandler](#)
- class [BtnTWeightHandler](#)
- class [BtnUpdateHandler](#)
- class [BtnViewHandler](#)

## 5.7 Package menu

### Classes

- class [Editor](#)  
*The main menu for choosing either to get values or set values in the main program.*
- class [Editor\\_Abstract](#)  
*This class extends the abstract class [Menu\\_Abstract](#), which provides the structure for editing and viewing the #↔ UserData.*
- class [Editor\\_Get](#)  
*Class that provides a User Interface to [Editor\\_Abstract](#), specifically to get values.*
- class [Editor\\_Set](#)  
*Class that creates a Menu user interface to edit any #UserData values.*
- class [Fitness](#)  
*The Menu Interface for the [Fitness](#) class.*
- class [Home](#)  
*The [Home](#) Menu interface.*
- class [Lifting\\_Stats](#)
- class [Main](#)  
*The main class that runs the TUI.*
- class [Menu\\_Abstract](#)  
*The template class that provides the skeleton menu interface.*
- class [Menu\\_Entry](#)  
*Class that provides the entry data structure.*
- class [Profiler](#)
- class [User\\_Select](#)

## 5.8 Package structs

### Classes

- class [SDouble](#)  
*The class that holds Double-typed data.*
- class [SInt](#)  
*The class that holds Integer-typed data.*
- class [SString](#)  
*The class that holds String-typed data.*
- class [Struct](#)  
*Provides the foundational DataType and primitive methods for all various inputs.*

## 5.9 Package tests

### Classes

- class [dataTest](#)
- class [file\\_ioTest](#)

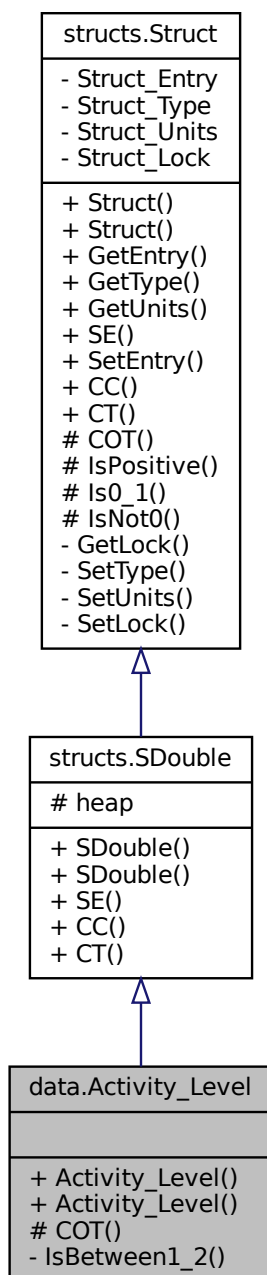
## Chapter 6

# Class Documentation

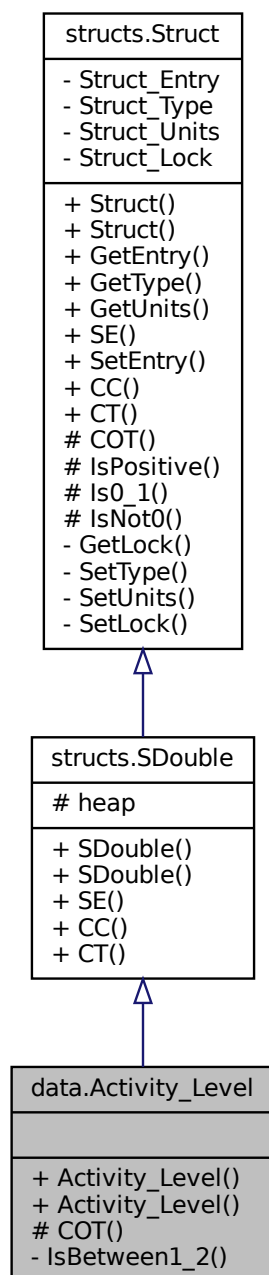
### 6.1 `data.Activity_Level` Class Reference

The class that holds [Activity\\_Level](#) data.

Inheritance diagram for data.Activity\_Level:



Collaboration diagram for data.Activity\_Level:



## Public Member Functions

- [Activity\\_Level](#) ()  
*Constructor with a null value.*
- [Activity\\_Level](#) (double o)  
*Constructor with a defined value.*

## Protected Member Functions

- boolean [COT](#) (Object o)

*Provides a method to return whether the object's type is valid to be inputted into.*

## Private Member Functions

- boolean [IsBetween1\\_2](#) (double o)

## Additional Inherited Members

### 6.1.1 Detailed Description

The class that holds [Activity\\_Level](#) data.

### 6.1.2 Constructor & Destructor Documentation

#### 6.1.2.1 [Activity\\_Level\(\)](#) [1/2]

```
data.Activity_Level.Activity_Level ( )
```

Constructor with a null value.

#### 6.1.2.2 [Activity\\_Level\(\)](#) [2/2]

```
data.Activity_Level.Activity_Level (
    double o )
```

Constructor with a defined value.

##### Parameters

<i>o</i>	The value of the class.
----------	-------------------------

### 6.1.3 Member Function Documentation

### 6.1.3.1 COT()

```
boolean data.Activity_Level.COT (
    Object o )    [protected]
```

Provides a method to return whether the object's type is valid to be inputted into.

E.g. String cannot go into Double, and vice versa, so it returns false.

#### Note

Lossy type casting may be encountered from Double to Integer.

Lossless type casting may be encountered from Integer to Double.

#### Parameters

<i>o</i>	Object to be inspected on other conditions.
----------	---

Reimplemented from [structs.Struct](#).

Here is the call graph for this function:



### 6.1.3.2 IsBetween1\_2()

```
boolean data.Activity_Level.IsBetween1_2 (
    double o )    [private]
```

Here is the caller graph for this function:

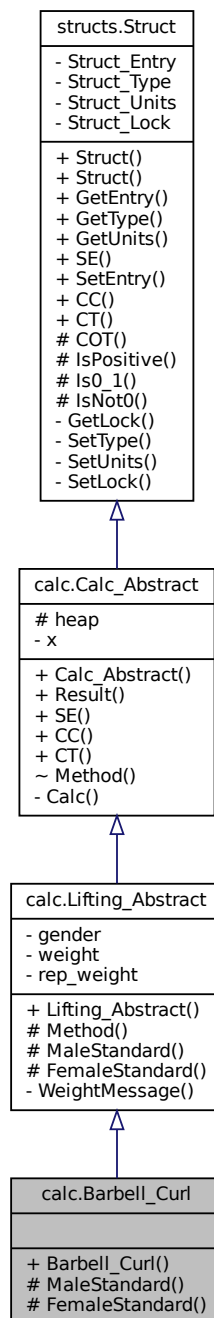


The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/data/Activity\_Level.java`

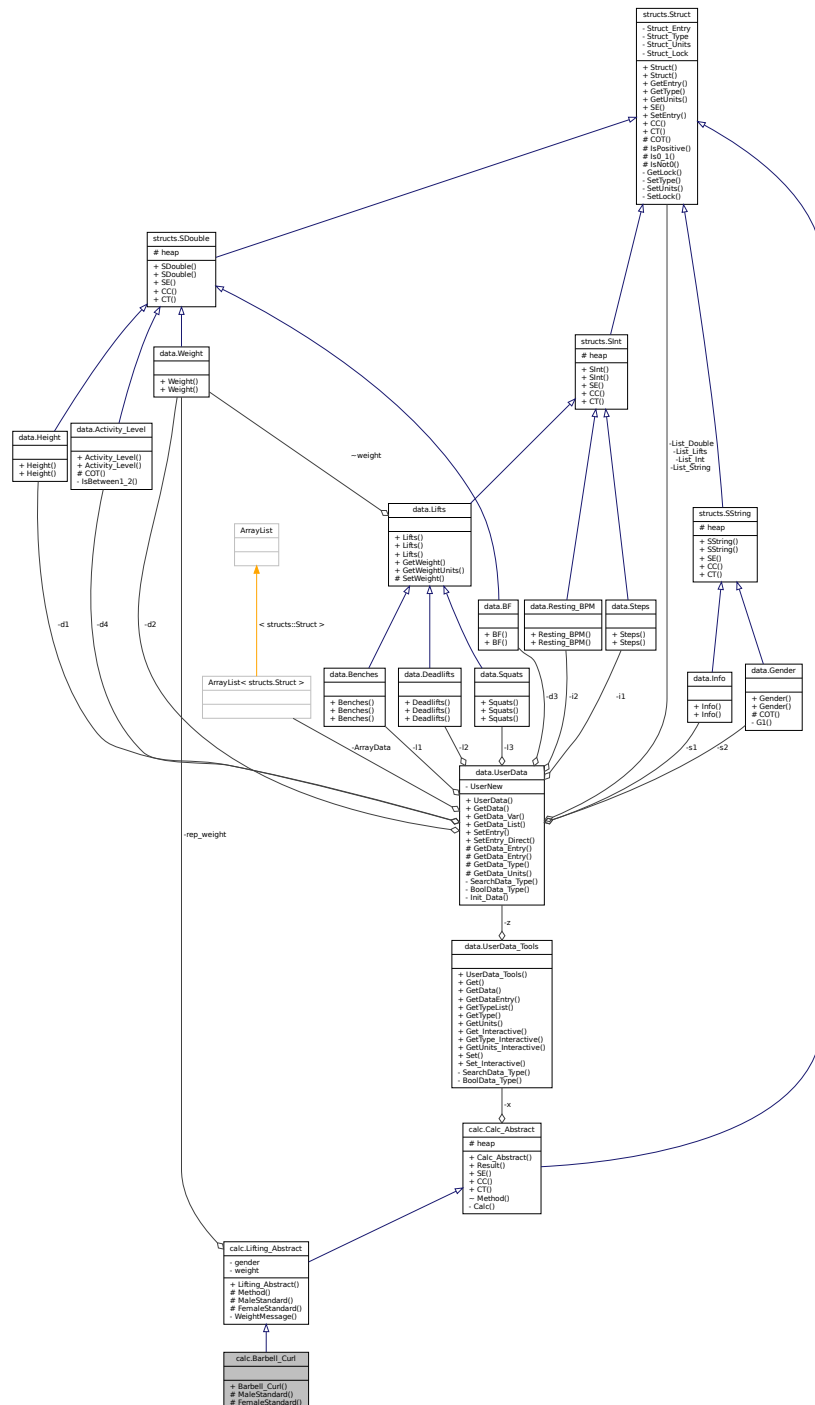
## 6.2 calc.Barbell\_Curl Class Reference

Inheritance diagram for calc.Barbell\_Curl:





Collaboration diagram for calc.Barbell\_Curl:



## Public Member Functions

- [Barbell\\_Curl](#) ([UserData](#) z)

## Protected Member Functions

- String [MaleStandard](#) (int [weight](#), int rweight)
- String [FemaleStandard](#) (int [weight](#), int rweight)

## Additional Inherited Members

### 6.2.1 Constructor & Destructor Documentation

#### 6.2.1.1 Barbell\_Curl()

```
calc.Barbell_Curl.Barbell_Curl (
    UserData z )
```

### 6.2.2 Member Function Documentation

#### 6.2.2.1 FemaleStandard()

```
String calc.Barbell_Curl.FemaleStandard (
    int weight,
    int rweight ) [protected]
```

Reimplemented from [calc.Lifting\\_Abstract](#).

#### 6.2.2.2 MaleStandard()

```
String calc.Barbell_Curl.MaleStandard (
    int weight,
    int rweight ) [protected]
```

Reimplemented from [calc.Lifting\\_Abstract](#).

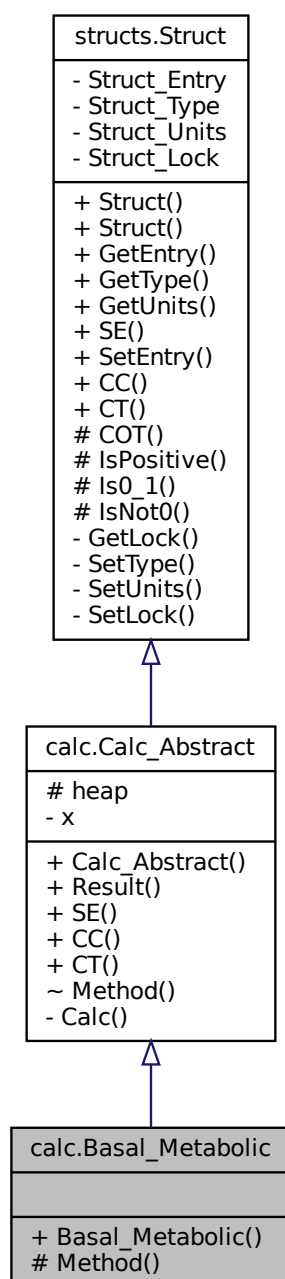
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/calc/Barbell\\_Curl.java](#)

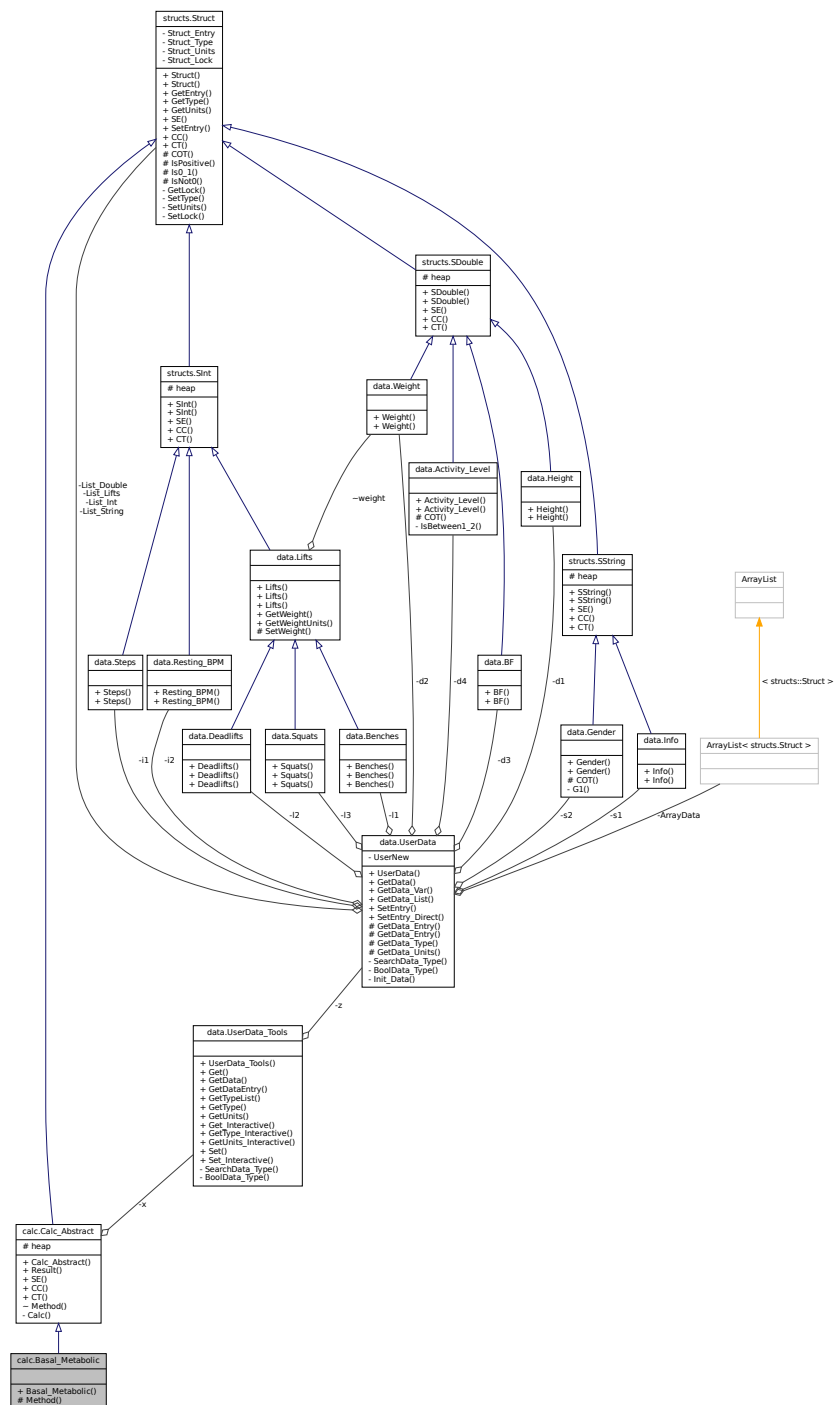
## 6.3 calc.Basal\_Metabolic Class Reference

Calculates and returns Basal Metabolic values.

Inheritance diagram for calc.Basal\_Metabolic:



Collaboration diagram for calc.Basal\_Metabolic:



## Public Member Functions

- [Basal\\_Metabolic](#) ([UserData](#) z)

Constructor for the class that uses #UserData.

## Protected Member Functions

- Object [Method](#) ([UserData\\_Tools](#) use)  
*The body of the calculations.*

## Additional Inherited Members

### 6.3.1 Detailed Description

Calculates and returns Basal Metabolic values.

### 6.3.2 Constructor & Destructor Documentation

#### 6.3.2.1 Basal\_Metabolic()

```
calc.Basal_Metabolic.Basal_Metabolic (
    UserData z )
```

Constructor for the class that uses #UserData.

##### Parameters

z	User's data.
---	--------------

### 6.3.3 Member Function Documentation

#### 6.3.3.1 Method()

```
Object calc.Basal_Metabolic.Method (
    UserData_Tools use ) [protected]
```

The body of the calculations.

##### Parameters

use	Instance of using the user's values to calculate the value of the class. Women BMR = 655 + (9.6 X weight in kg) + (1.8 x height in cm) – (4.7 x age in yrs) Men BMR = 66 + (13.7 X weight in kg) + (5 x height in cm) – (6.8 x age in yrs)
-----	--

Reimplemented from [calc.Calc\\_Abstract](#).

Here is the call graph for this function:

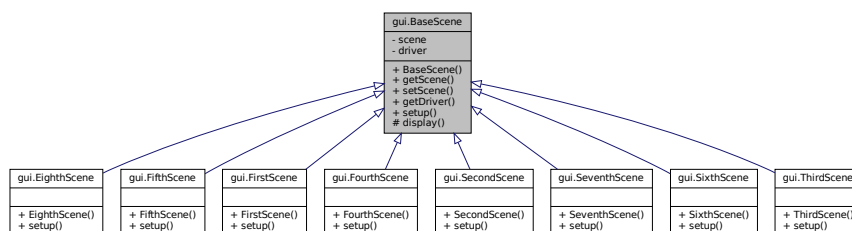


The documentation for this class was generated from the following file:

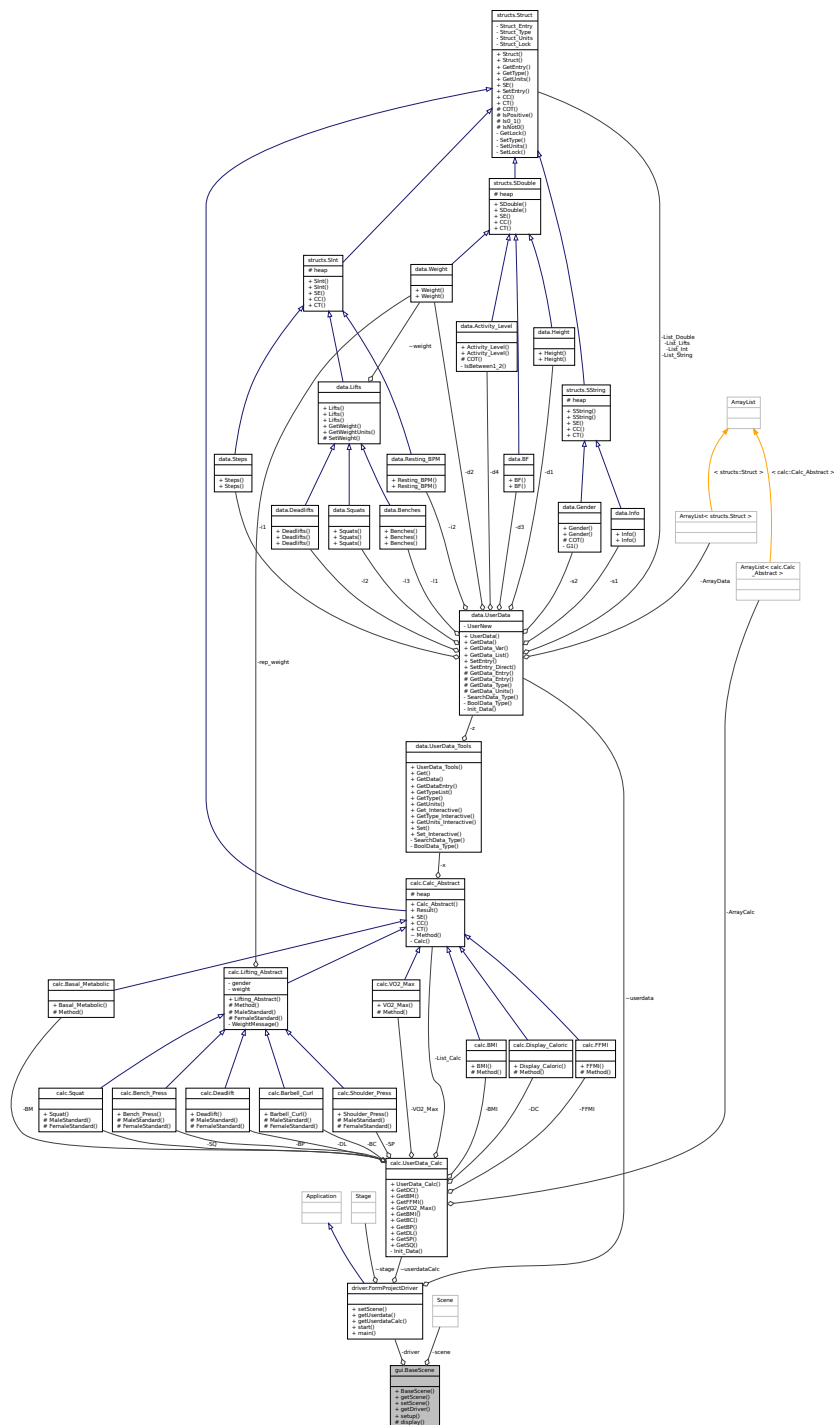
- `/home/jamie/java/forms_project/src/lib/calc/Basal_Metabolic.java`

## 6.4 gui.BaseScene Class Reference

Inheritance diagram for `gui.BaseScene`:



Collaboration diagram for gui.BaseScene:



## Public Member Functions

- BaseScene (FormProjectDriver driver)
- Scene `getScene ()`
- void `setScene (Scene scene)`
- FormProjectDriver `getDriver ()`
- abstract void `setup ()`

*Sets up the scene (the actual drawing)*

## Protected Member Functions

- void `display()`

## Private Attributes

- Scene `scene`
- `FormProjectDriver` `driver`

## 6.4.1 Constructor & Destructor Documentation

### 6.4.1.1 BaseScene()

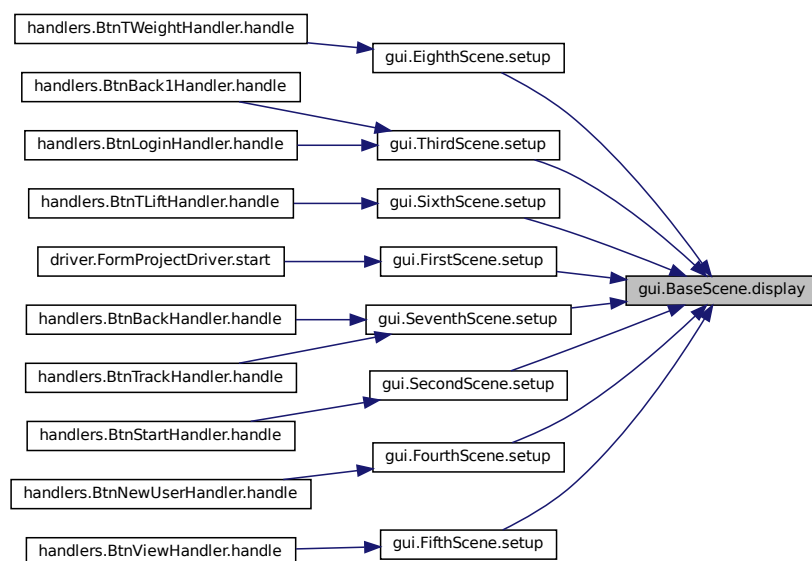
```
gui.BaseScene.BaseScene (
    FormProjectDriver driver )
```

## 6.4.2 Member Function Documentation

### 6.4.2.1 display()

```
void gui.BaseScene.display ( ) [protected]
```

Here is the caller graph for this function:

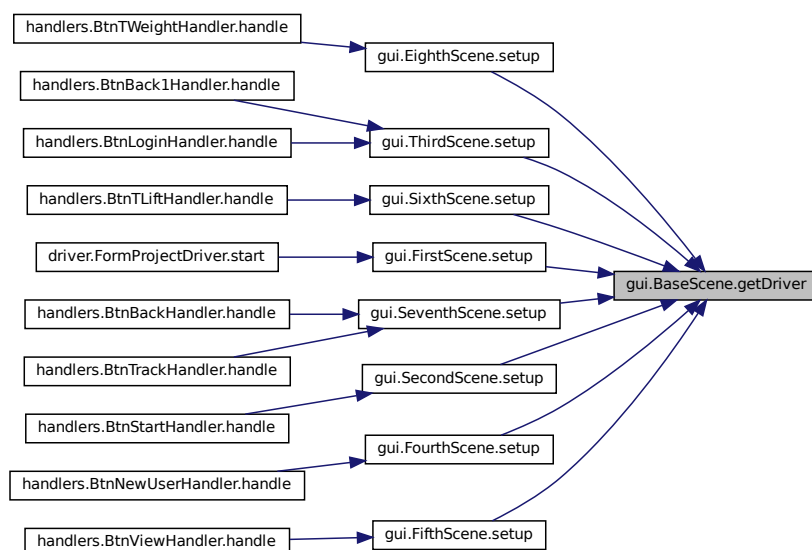




### 6.4.2.2 getDriver()

```
FormProjectDriver gui.BaseScene.getDriver ( )
```

Here is the caller graph for this function:



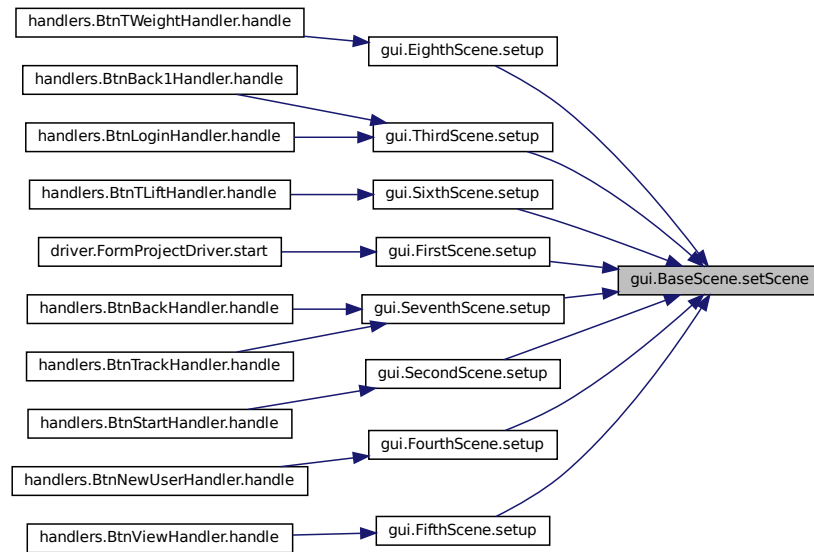
### 6.4.2.3 getScene()

```
Scene gui.BaseScene.getScene ( )
```

### 6.4.2.4 setScene()

```
void gui.BaseScene.setScene (
    Scene scene )
```

Here is the caller graph for this function:



#### 6.4.2.5 setup()

```
abstract void gui.BaseScene.setup ( ) [abstract]
```

Sets up the scene (the actual drawing)

Reimplemented in [gui.FifthScene](#), [gui.FourthScene](#), [gui.SecondScene](#), [gui.SeventhScene](#), [gui.EighthScene](#), [gui.FirstScene](#), [gui.SixthScene](#), and [gui.ThirdScene](#).

### 6.4.3 Member Data Documentation

#### 6.4.3.1 driver

```
FormProjectDriver gui.BaseScene.driver [private]
```

#### 6.4.3.2 scene

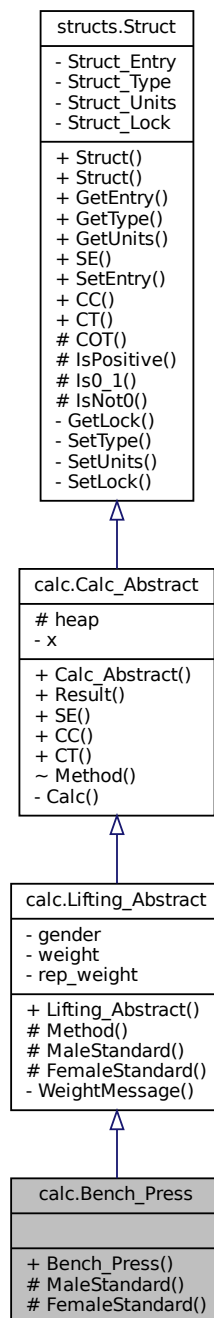
```
Scene gui.BaseScene.scene [private]
```

The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/gui/gui/BaseScene.java](#)

## 6.5 calc.Bench\_Press Class Reference

Inheritance diagram for calc.Bench\_Press:





- ## Protected Member Functions

- Generated by Doxygen

## Additional Inherited Members

### 6.5.1 Constructor & Destructor Documentation

#### 6.5.1.1 Bench\_Press()

```
calc.Bench_Press.Bench_Press (
    UserData z )
```

### 6.5.2 Member Function Documentation

#### 6.5.2.1 FemaleStandard()

```
String calc.Bench_Press.FemaleStandard (
    int weight,
    int rweight ) [protected]
```

Reimplemented from [calc.Lifting\\_Abstract](#).

#### 6.5.2.2 MaleStandard()

```
String calc.Bench_Press.MaleStandard (
    int weight,
    int rweight ) [protected]
```

Reimplemented from [calc.Lifting\\_Abstract](#).

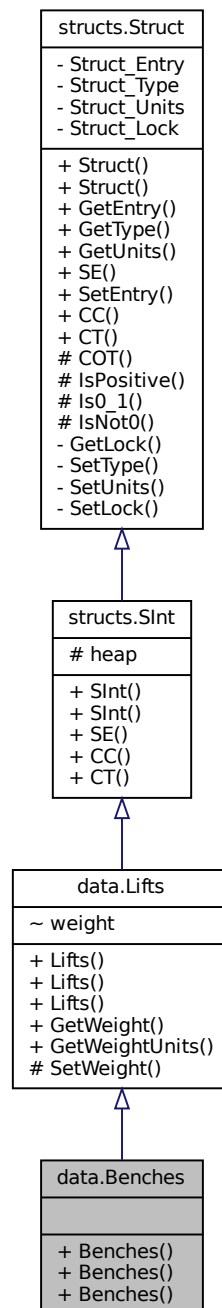
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/calc/Bench\\_Press.java](#)

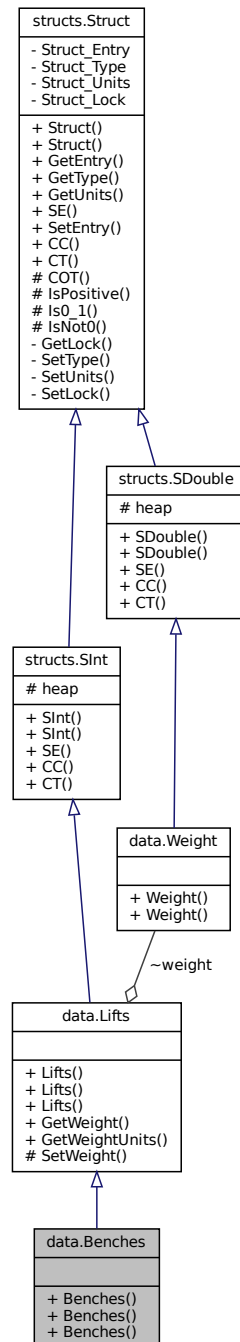
## 6.6 data.Benches Class Reference

The class that holds [Benches](#) data.

Inheritance diagram for data.Benches:



Collaboration diagram for data.Benches:



## Public Member Functions

- [Benches](#) ()  
*Constructor with null values both in reps and weight.*
- [Benches](#) (int o)  
*Constructor with a defined reps value.*
- [Benches](#) (int o, double p)  
*Constructor with a defined reps value, and a weight value.*

## Additional Inherited Members

### 6.6.1 Detailed Description

The class that holds [Benches](#) data.

### 6.6.2 Constructor & Destructor Documentation

#### 6.6.2.1 `Benches()` [1/3]

```
data.Benches.Benches ( )
```

Constructor with null values both in reps and weight.

#### 6.6.2.2 `Benches()` [2/3]

```
data.Benches.Benches (
    int o )
```

Constructor with a defined reps value.

##### Parameters

<i>o</i>	The value of the reps.
----------	------------------------

#### 6.6.2.3 `Benches()` [3/3]

```
data.Benches.Benches (
    int o,
    double p )
```

Constructor with a defined reps value, and a weight value.

##### Parameters

<i>o</i>	The value of the reps.
<i>p</i>	The value of the weight.

The documentation for this class was generated from the following file:

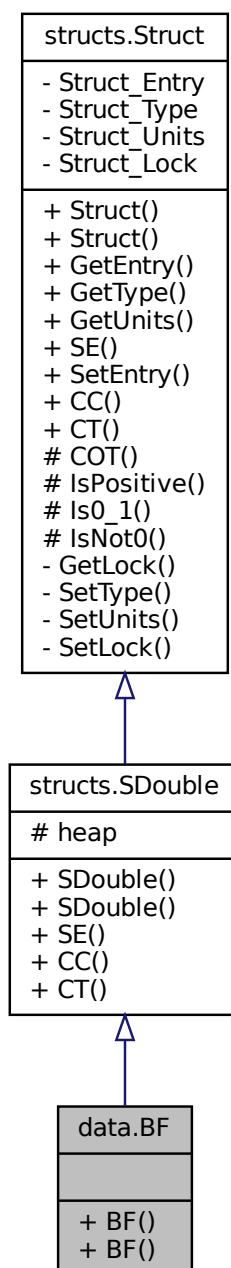


- [/home/jamie/java/forms\\_project/src/lib/data/Benches.java](#)

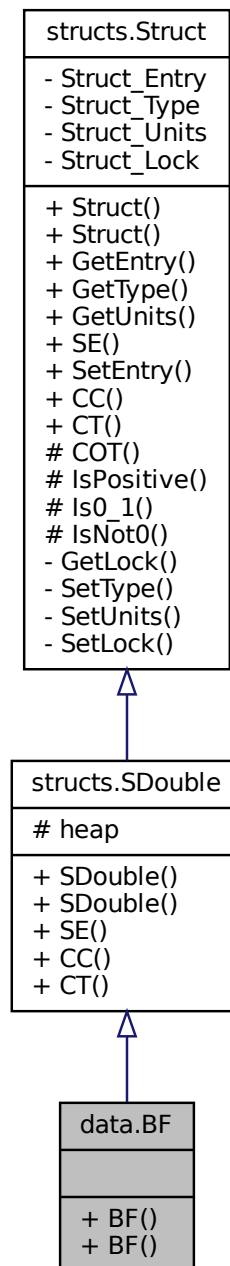
## 6.7 data.BF Class Reference

The class that holds [BF](#) data.

Inheritance diagram for data.BF:



Collaboration diagram for data.BF:



## Public Member Functions

- `BF ()`  
*Constructor with a null value.*
- `BF (double o)`  
*Constructor with a defined value.*

## Additional Inherited Members

### 6.7.1 Detailed Description

The class that holds [BF](#) data.

### 6.7.2 Constructor & Destructor Documentation

#### 6.7.2.1 `BF()` [1/2]

```
data.BF.BF ( )
```

Constructor with a null value.

#### 6.7.2.2 `BF()` [2/2]

```
data.BF.BF (
    double o )
```

Constructor with a defined value.

##### Parameters

<i>o</i>	The value of the class.
----------	-------------------------

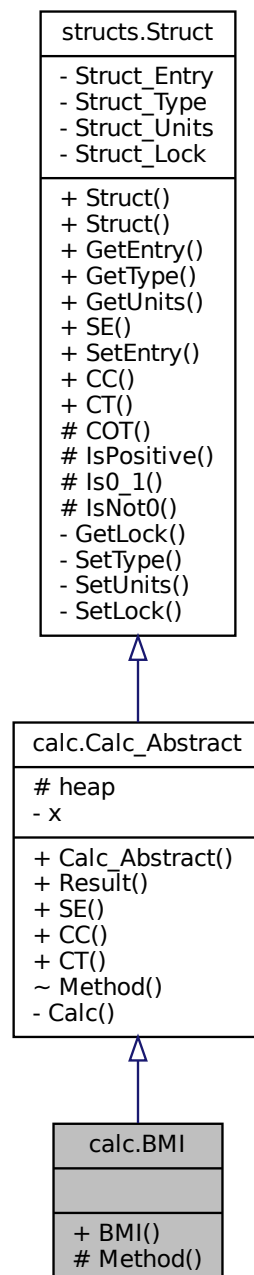
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/data/BF.java](#)

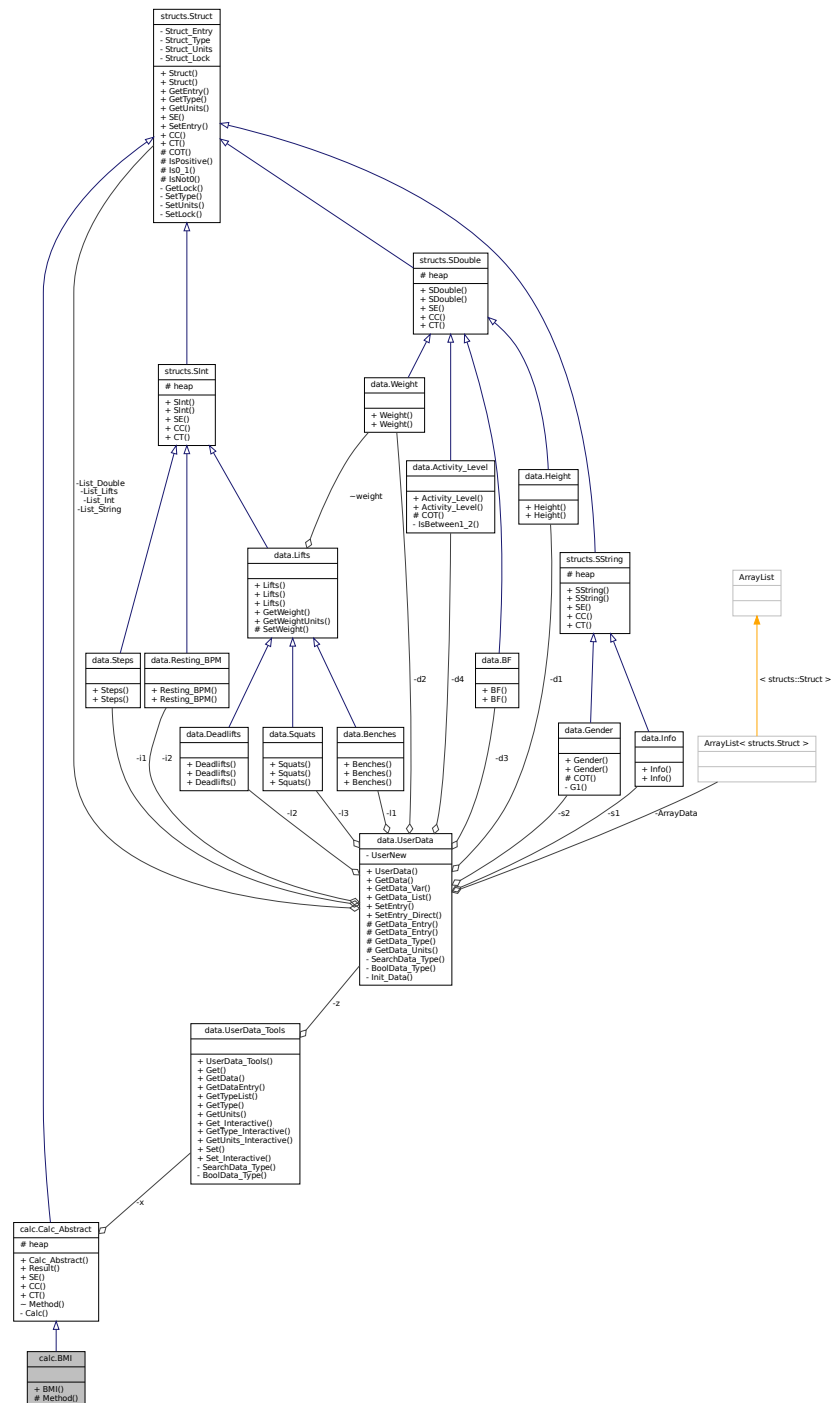
## 6.8 calc.BMI Class Reference

Calculates and returns [BMI](#) values.

Inheritance diagram for calc.BMI:



Collaboration diagram for calc.BMI:



## Public Member Functions

- BMI (UserData z)

*Constructor for the class that uses #UserData.*

## Protected Member Functions

- Object [Method](#) ([UserData\\_Tools](#) use)  
*The body of the calculations.*

## Additional Inherited Members

### 6.8.1 Detailed Description

Calculates and returns [BMI](#) values.

### 6.8.2 Constructor & Destructor Documentation

#### 6.8.2.1 BMI()

```
calc.BMI.BMI (
    UserData z )
```

Constructor for the class that uses #UserData.

##### Parameters

<a href="#">z</a>	User's data.
-------------------	--------------

### 6.8.3 Member Function Documentation

#### 6.8.3.1 Method()

```
Object calc.BMI.Method (
    UserData\_Tools use ) [protected]
```

The body of the calculations.

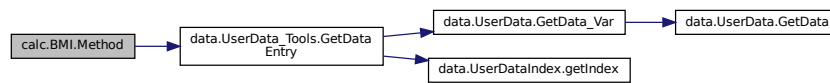
##### Parameters

<a href="#">use</a>	Instance of using the user's values to calculate the value of the class.
---------------------	--

[BMI](#) = body weight in kg/ height in m squared

Reimplemented from [calc.Calc\\_Abstract](#).

Here is the call graph for this function:

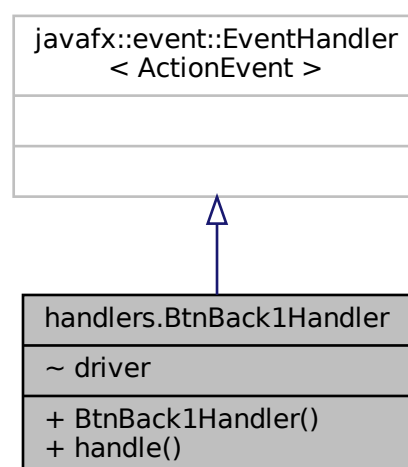


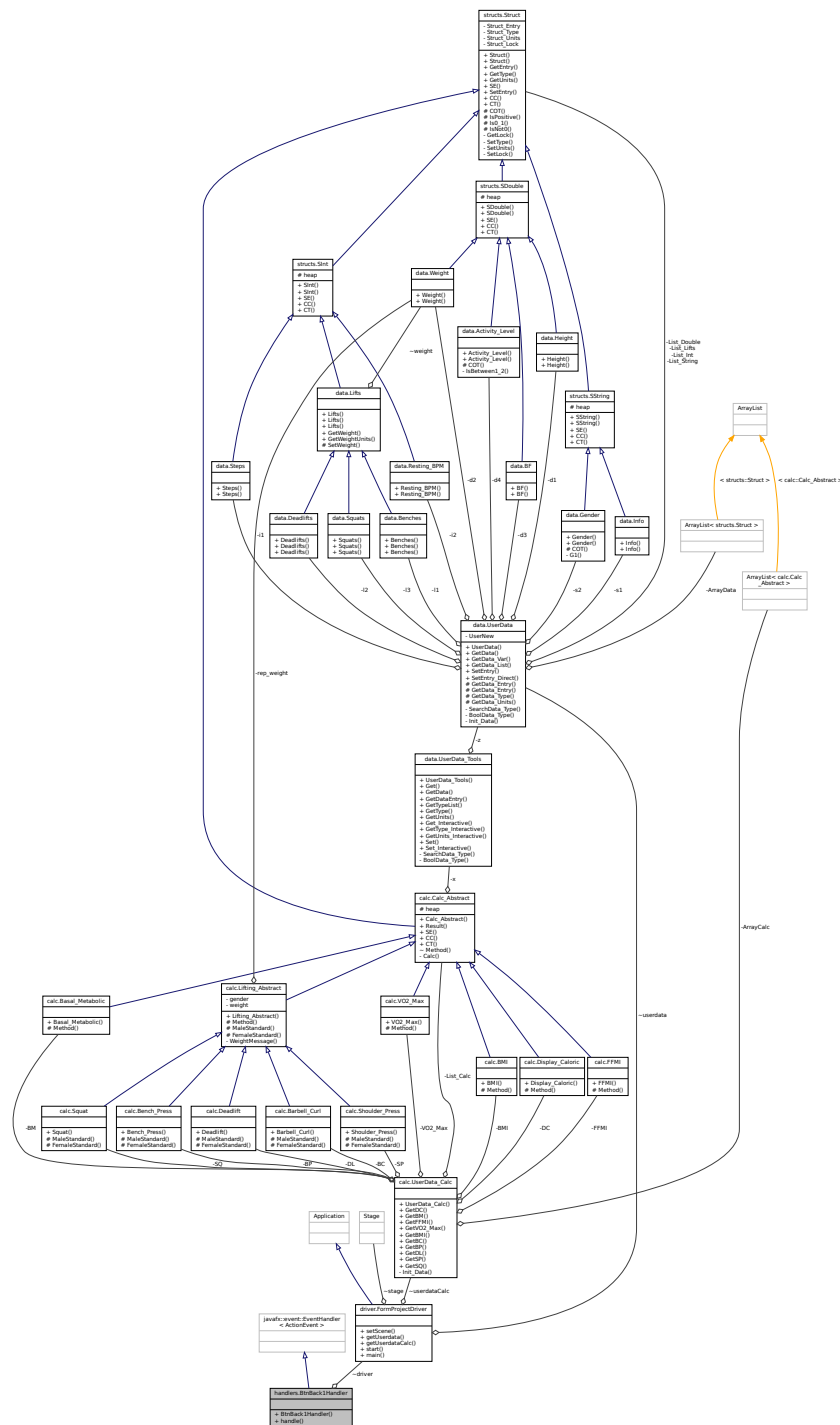
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/calcul/BMI.java](/home/jamie/java/forms_project/src/lib/calcul/BMI.java)

## 6.9 handlers.BtnBack1Handler Class Reference

Inheritance diagram for handlers.BtnBack1Handler:





## Public Member Functions

- BtnBack1Handler (FormProjectDriver driver)
- void handle (ActionEvent event)

## Package Attributes

- **FormProjectDriver** driver



## 6.9.1 Constructor & Destructor Documentation

### 6.9.1.1 BtnBack1Handler()

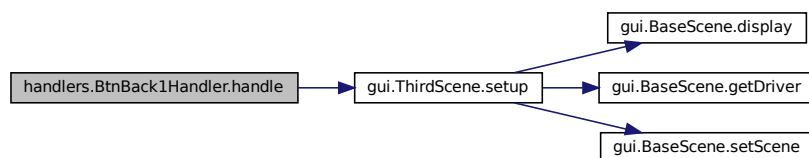
```
handlers.BtnBack1Handler.BtnBack1Handler (
    FormProjectDriver driver )
```

## 6.9.2 Member Function Documentation

### 6.9.2.1 handle()

```
void handlers.BtnBack1Handler.handle (
    ActionEvent event )
```

Here is the call graph for this function:



## 6.9.3 Member Data Documentation

### 6.9.3.1 driver

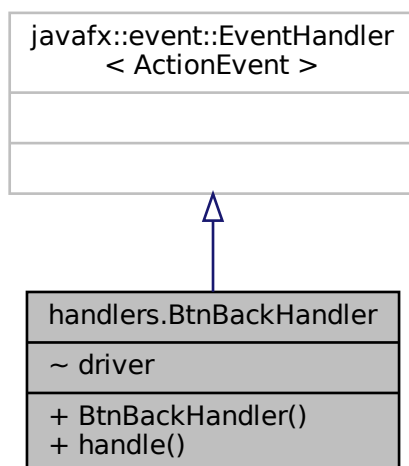
```
FormProjectDriver handlers.BtnBack1Handler.driver [package]
```

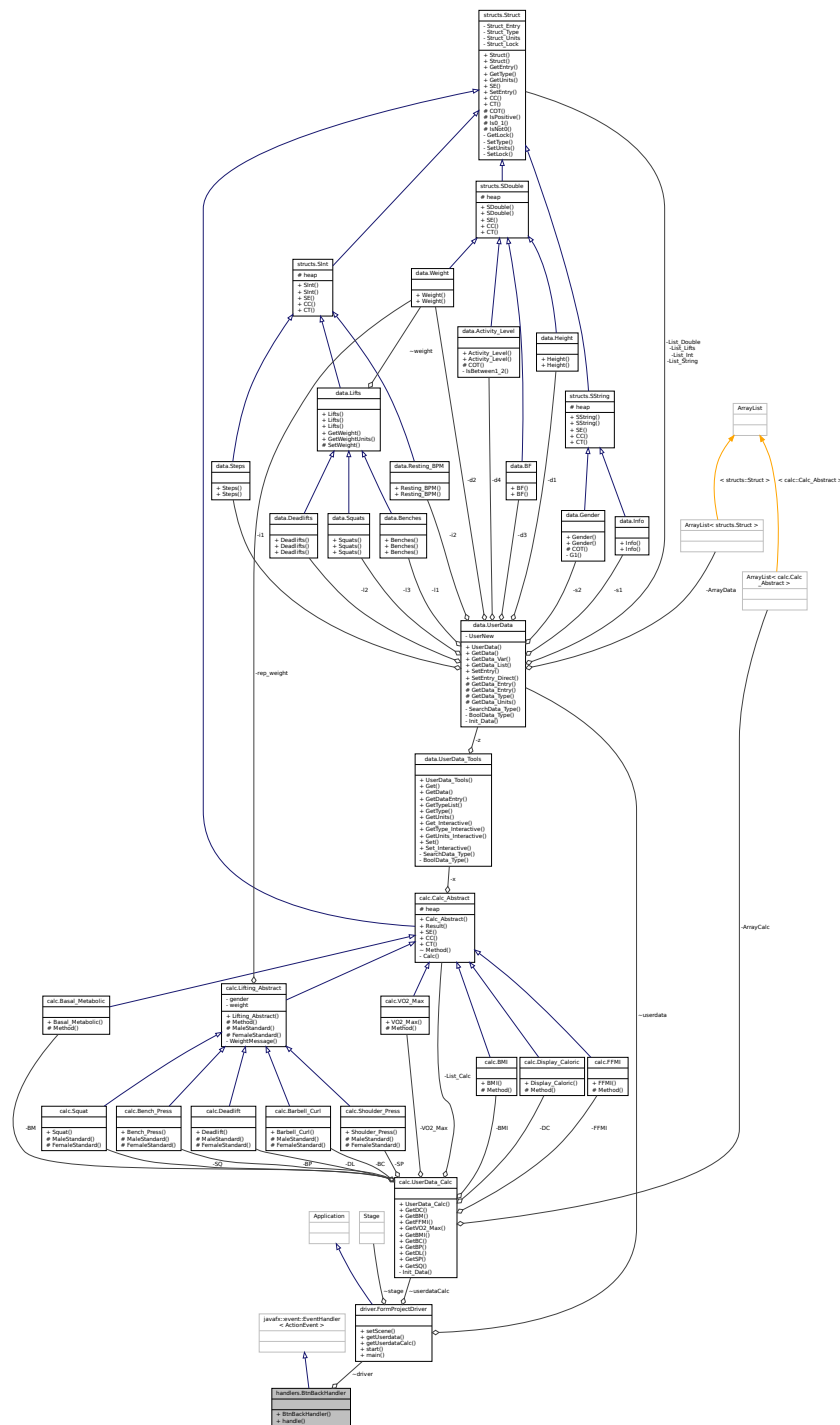
The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/gui/handlers/BtnBack1Handler.java`

## 6.10 handlers.BtnBackHandler Class Reference

Inheritance diagram for handlers.BtnBackHandler:





## Public Member Functions

- BtnBackHandler (FormProjectDriver driver)
- void handle (ActionEvent event)

## Package Attributes

- FormProjectDriver driver

## 6.10.1 Constructor & Destructor Documentation

### 6.10.1.1 BtnBackHandler()

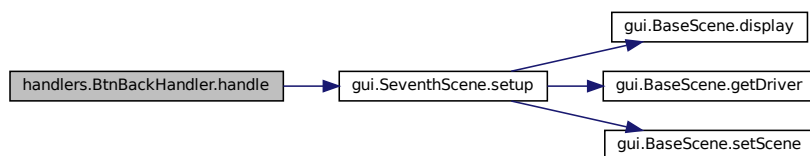
```
handlers.BtnBackHandler.BtnBackHandler (
    FormProjectDriver driver )
```

## 6.10.2 Member Function Documentation

### 6.10.2.1 handle()

```
void handlers.BtnBackHandler.handle (
    ActionEvent event )
```

Here is the call graph for this function:



## 6.10.3 Member Data Documentation

### 6.10.3.1 driver

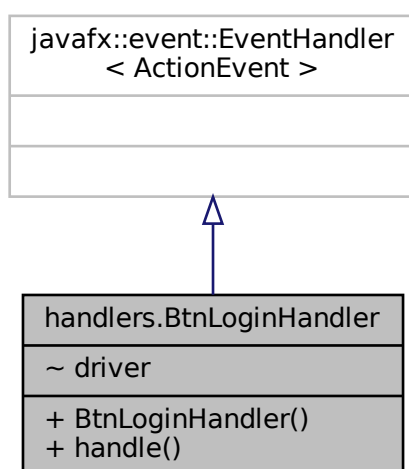
```
FormProjectDriver handlers.BtnBackHandler.driver [package]
```

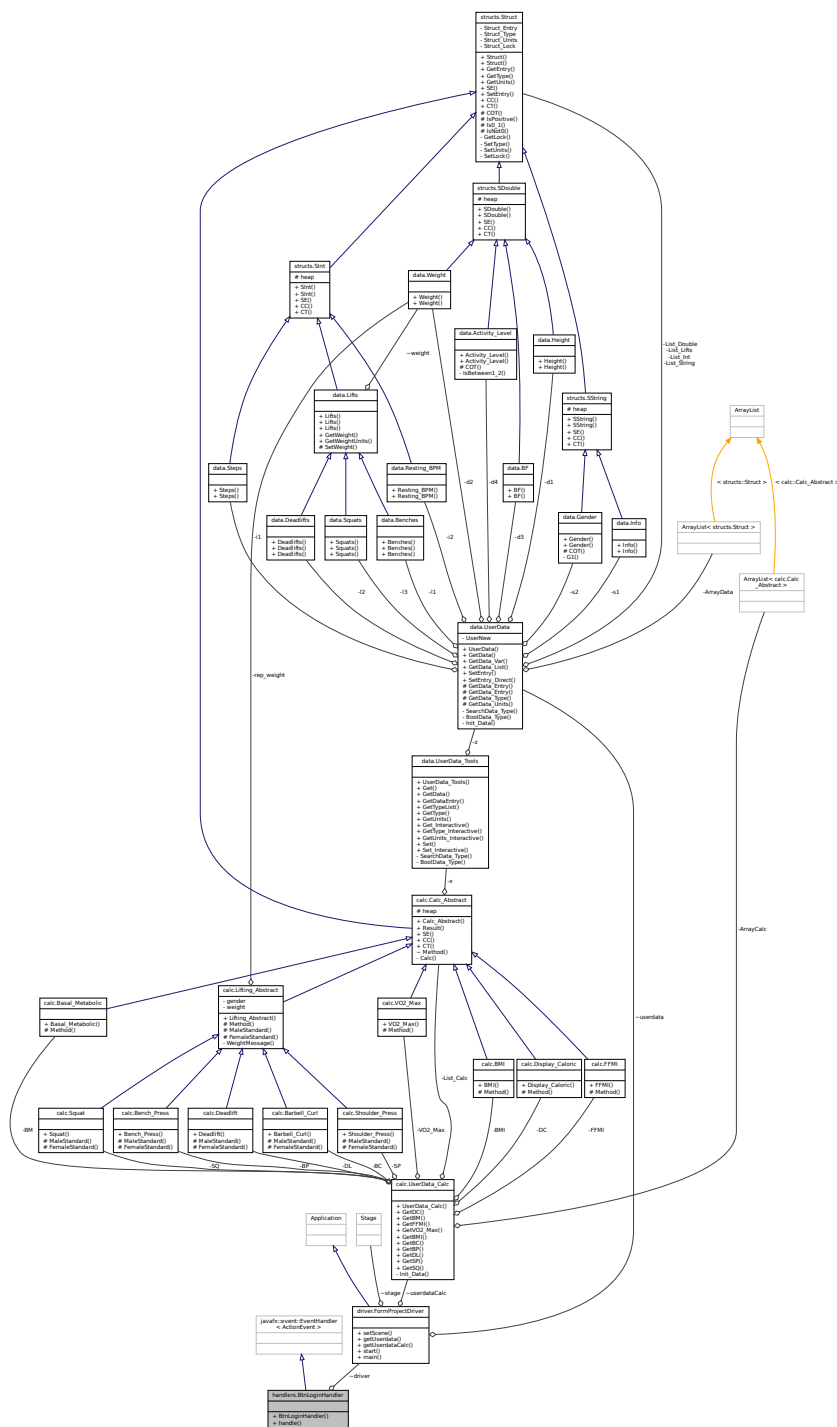
The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/gui/handlers/BtnBackHandler.java`

## 6.11 handlers.BtnLoginHandler Class Reference

Inheritance diagram for handlers.BtnLoginHandler:





## Public Member Functions

- BtnLoginHandler (FormProjectDriver driver)
- void handle (ActionEvent event)

## Package Attributes

- FormProjectDriver driver

## 6.11.1 Constructor & Destructor Documentation

### 6.11.1.1 BtnLoginHandler()

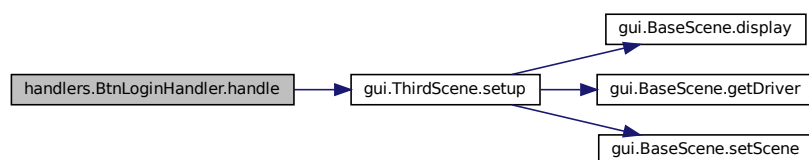
```
handlers.BtnLoginHandler.BtnLoginHandler (
    FormProjectDriver driver )
```

## 6.11.2 Member Function Documentation

### 6.11.2.1 handle()

```
void handlers.BtnLoginHandler.handle (
    ActionEvent event )
```

Here is the call graph for this function:



## 6.11.3 Member Data Documentation

### 6.11.3.1 driver

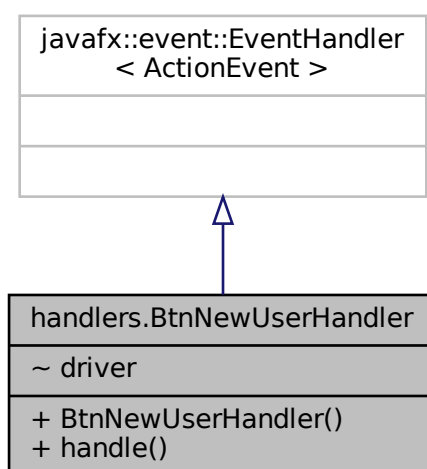
```
FormProjectDriver handlers.BtnLoginHandler.driver [package]
```

The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/gui/handlers/BtnLoginHandler.java`

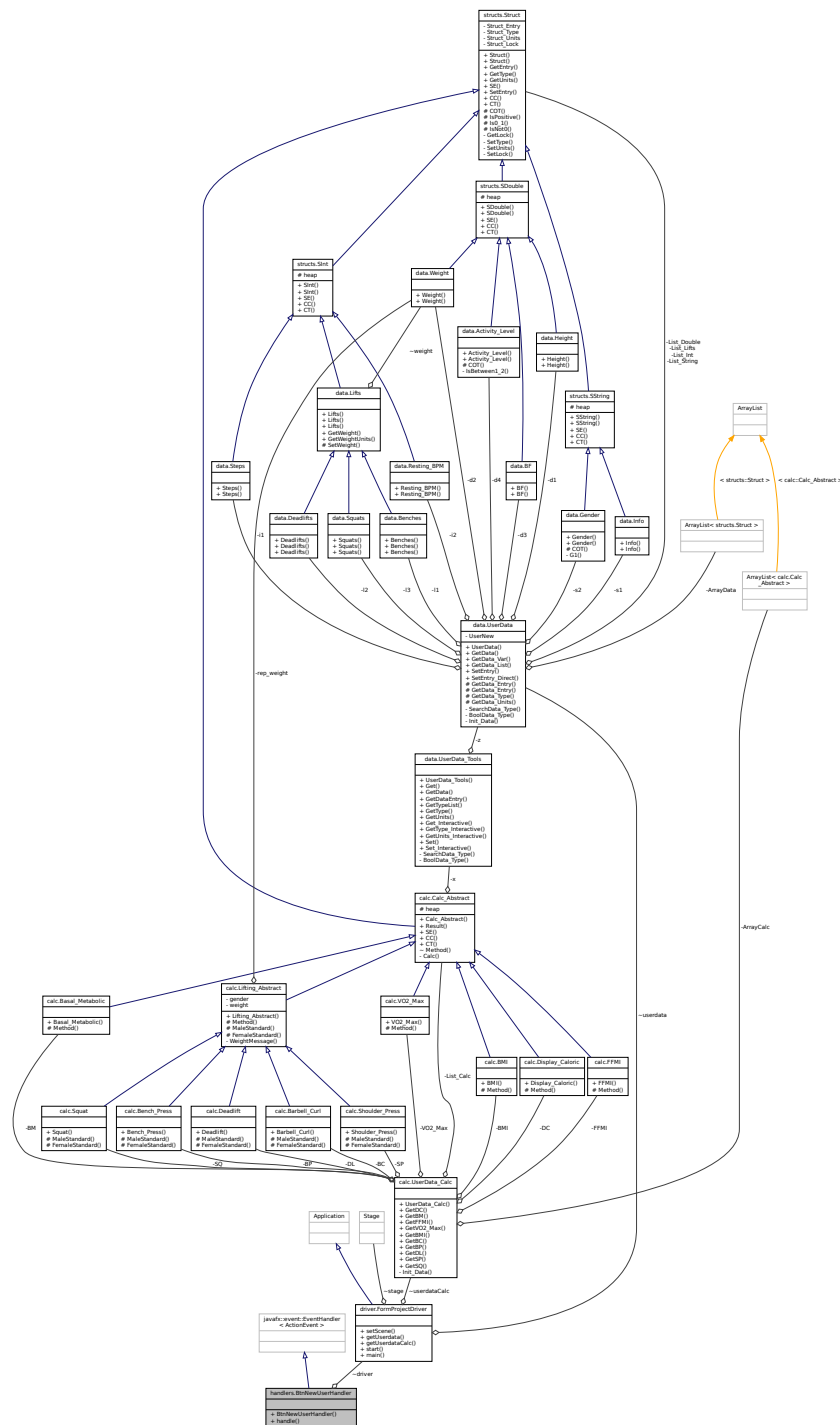
## 6.12 handlers.BtnNewUserHandler Class Reference

Inheritance diagram for handlers.BtnNewUserHandler:





Collaboration diagram for handlers.BtnNewUserHandler:



## Public Member Functions

- BtnNewUserHandler (FormProjectDriver driver)
- void handle (ActionEvent event)

## Package Attributes

- FormProjectDriver driver

## 6.12.1 Constructor & Destructor Documentation

### 6.12.1.1 BtnNewUserHandler()

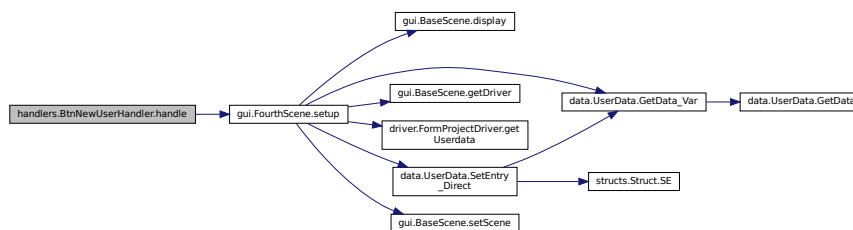
```
handlers.BtnNewUserHandler.BtnNewUserHandler (
    FormProjectDriver driver )
```

## 6.12.2 Member Function Documentation

### 6.12.2.1 handle()

```
void handlers.BtnNewUserHandler.handle (
    ActionEvent event )
```

Here is the call graph for this function:



## 6.12.3 Member Data Documentation

### 6.12.3.1 driver

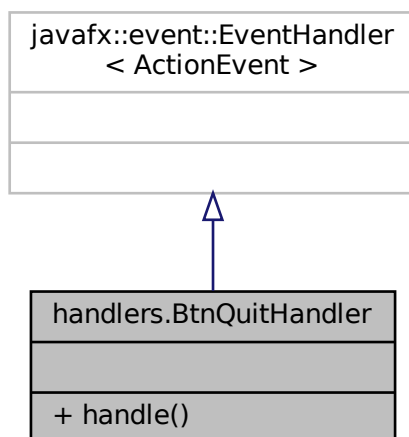
```
FormProjectDriver handlers.BtnNewUserHandler.driver [package]
```

The documentation for this class was generated from the following file:

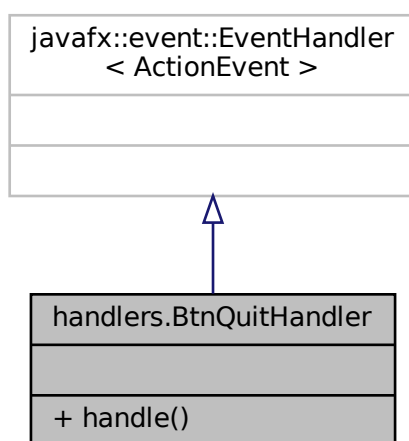
- `/home/jamie/java/forms_project/src/lib/gui/handlers/BtnNewUserHandler.java`

## 6.13 handlers.BtnQuitHandler Class Reference

Inheritance diagram for handlers.BtnQuitHandler:



Collaboration diagram for handlers.BtnQuitHandler:



### Public Member Functions

- void [handle](#) (ActionEvent event)

### 6.13.1 Member Function Documentation

#### 6.13.1.1 `handle()`

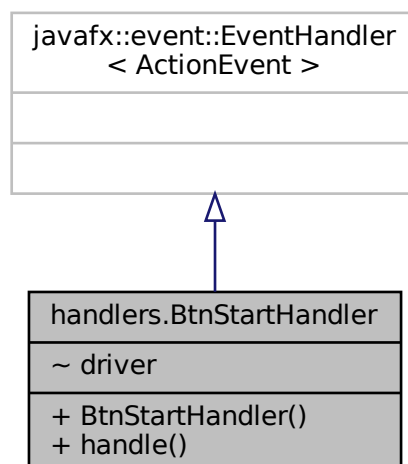
```
void handlers.BtnQuitHandler.handle (
    ActionEvent event )
```

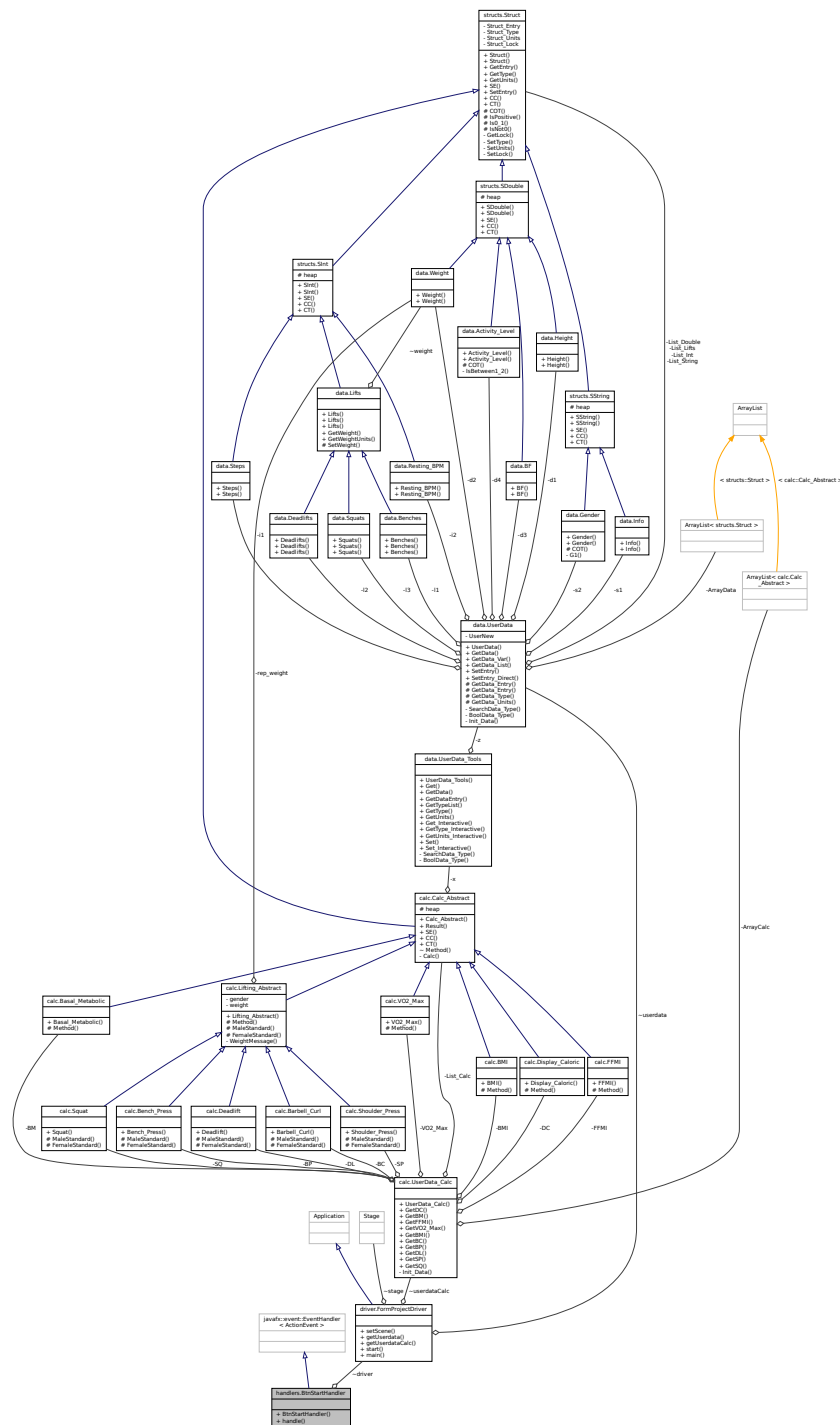
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/gui/handlers/BtnQuitHandler.java](#)

## 6.14 handlers.BtnStartHandler Class Reference

Inheritance diagram for handlers.BtnStartHandler:





## Public Member Functions

- BtnStartHandler (FormProjectDriver driver)
- void handle (ActionEvent event)

## Package Attributes

- FormProjectDriver driver

## 6.14.1 Constructor & Destructor Documentation

### 6.14.1.1 BtnStartHandler()

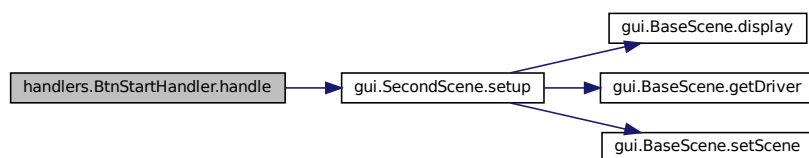
```
handlers.BtnStartHandler.BtnStartHandler (
    FormProjectDriver driver )
```

## 6.14.2 Member Function Documentation

### 6.14.2.1 handle()

```
void handlers.BtnStartHandler.handle (
    ActionEvent event )
```

Here is the call graph for this function:



## 6.14.3 Member Data Documentation

### 6.14.3.1 driver

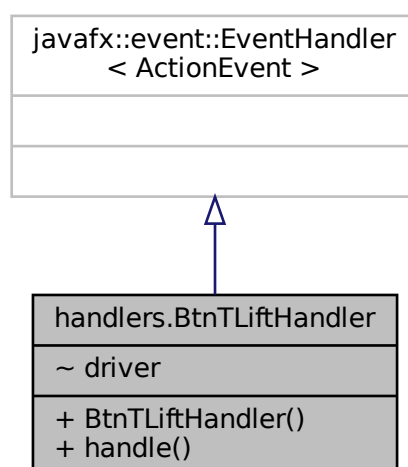
```
FormProjectDriver handlers.BtnStartHandler.driver [package]
```

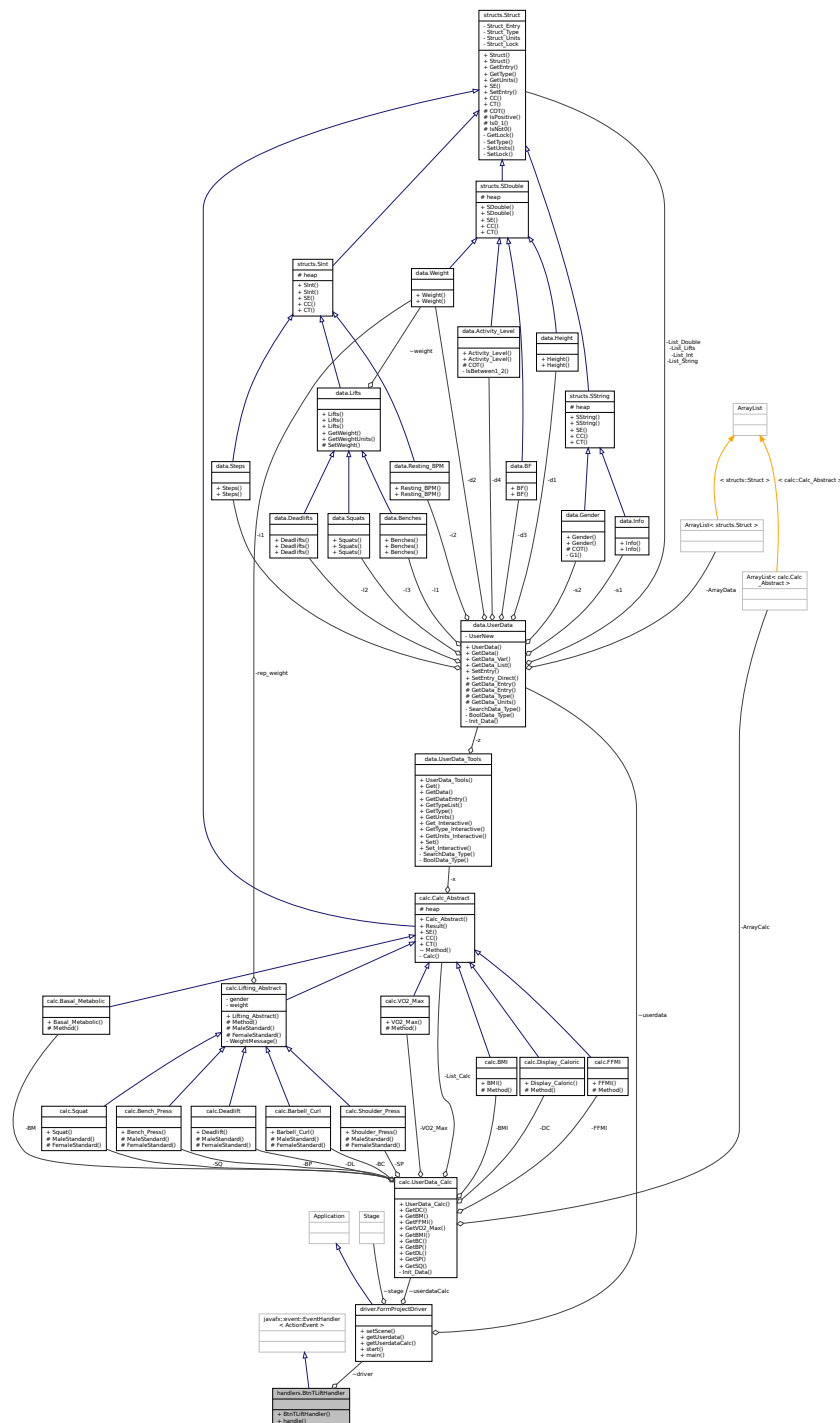
The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/gui/handlers/BtnStartHandler.java`

## 6.15 handlers.BtnTLiftHandler Class Reference

Inheritance diagram for handlers.BtnTLiftHandler:





## Public Member Functions

- BtnTLiftHandler (FormProjectDriver driver)
- void handle (ActionEvent event)

## Package Attributes

- **FormProjectDriver** driver



## 6.15.1 Constructor & Destructor Documentation

### 6.15.1.1 BtnTLiftHandler()

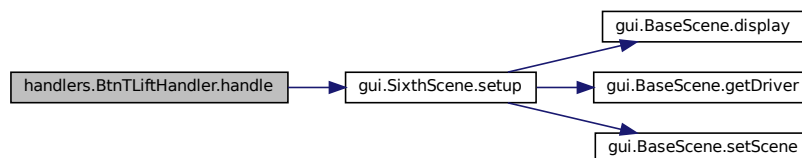
```
handlers.BtnTLiftHandler.BtnTLiftHandler (
    FormProjectDriver driver )
```

## 6.15.2 Member Function Documentation

### 6.15.2.1 handle()

```
void handlers.BtnTLiftHandler.handle (
    ActionEvent event )
```

Here is the call graph for this function:



## 6.15.3 Member Data Documentation

### 6.15.3.1 driver

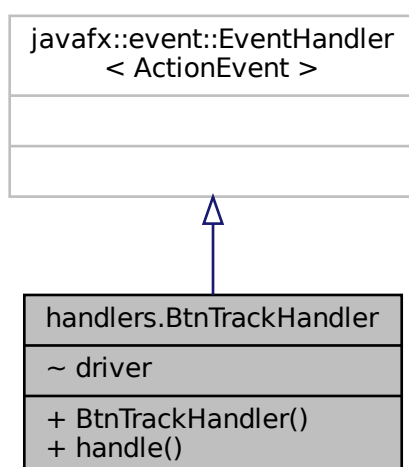
```
FormProjectDriver handlers.BtnTLiftHandler.driver [package]
```

The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/gui/handlers/BtnTLiftHandler.java`

## 6.16 handlers.BtnTrackHandler Class Reference

Inheritance diagram for handlers.BtnTrackHandler:





- FormProjectDriver driver

- FormProjectDriver driver

## 6.16.1 Constructor & Destructor Documentation

### 6.16.1.1 BtnTrackHandler()

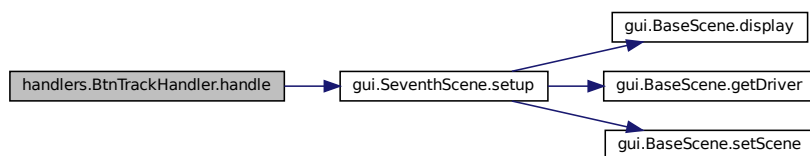
```
handlers.BtnTrackHandler.BtnTrackHandler (
    FormProjectDriver driver )
```

## 6.16.2 Member Function Documentation

### 6.16.2.1 handle()

```
void handlers.BtnTrackHandler.handle (
    ActionEvent event )
```

Here is the call graph for this function:



## 6.16.3 Member Data Documentation

### 6.16.3.1 driver

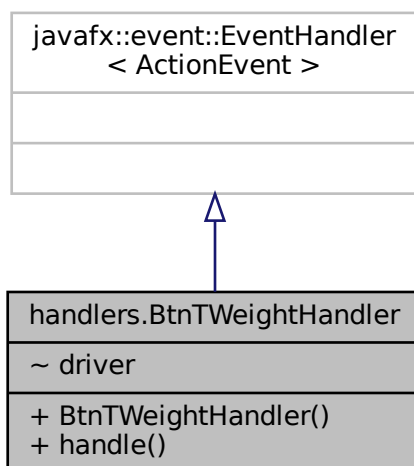
```
FormProjectDriver handlers.BtnTrackHandler.driver [package]
```

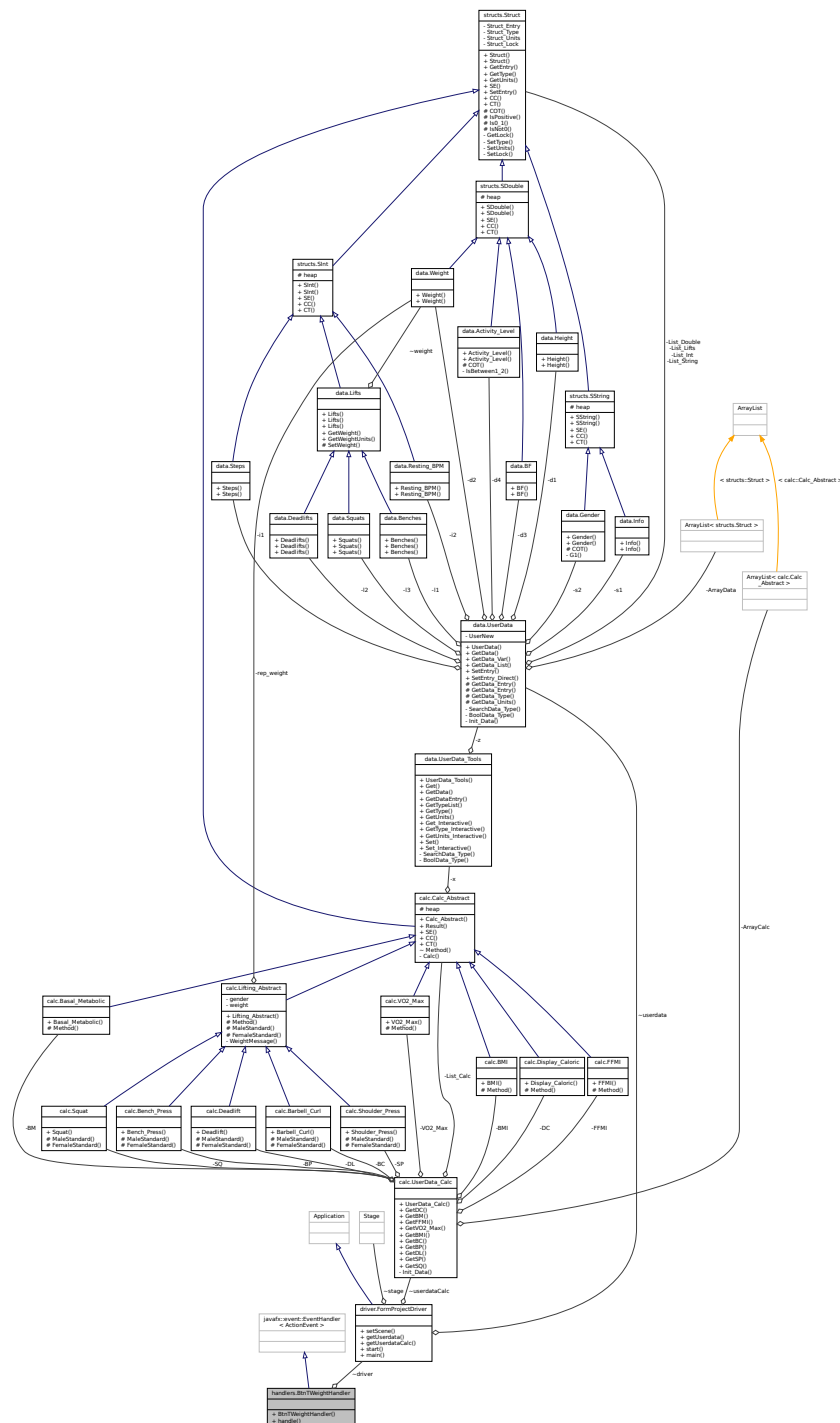
The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/gui/handlers/BtnTrackHandler.java`

## 6.17 handlers.BtnTWeightHandler Class Reference

Inheritance diagram for handlers.BtnTWeightHandler:





## Public Member Functions

- BtnTWeightHandler (FormProjectDriver driver)
- void handle (ActionEvent event)

## Package Attributes

- FormProjectDriver driver

## 6.17.1 Constructor & Destructor Documentation

### 6.17.1.1 BtnTWeightHandler()

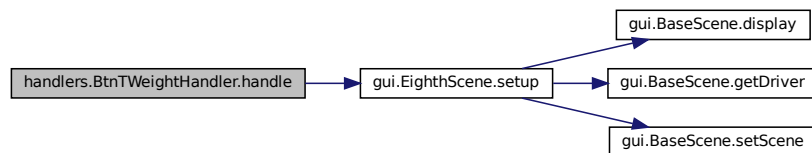
```
handlers.BtnTWeightHandler.BtnTWeightHandler (
    FormProjectDriver driver )
```

## 6.17.2 Member Function Documentation

### 6.17.2.1 handle()

```
void handlers.BtnTWeightHandler.handle (
    ActionEvent event )
```

Here is the call graph for this function:



## 6.17.3 Member Data Documentation

### 6.17.3.1 driver

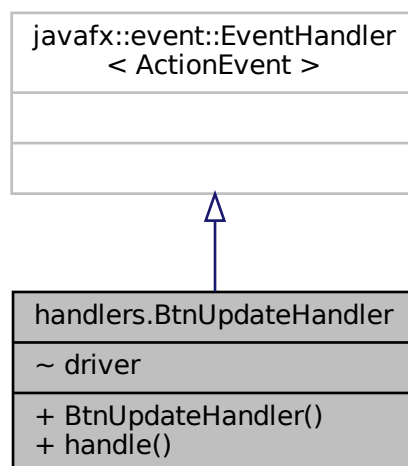
```
FormProjectDriver handlers.BtnTWeightHandler.driver [package]
```

The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/gui/handlers/BtnTWeightHandler.java`

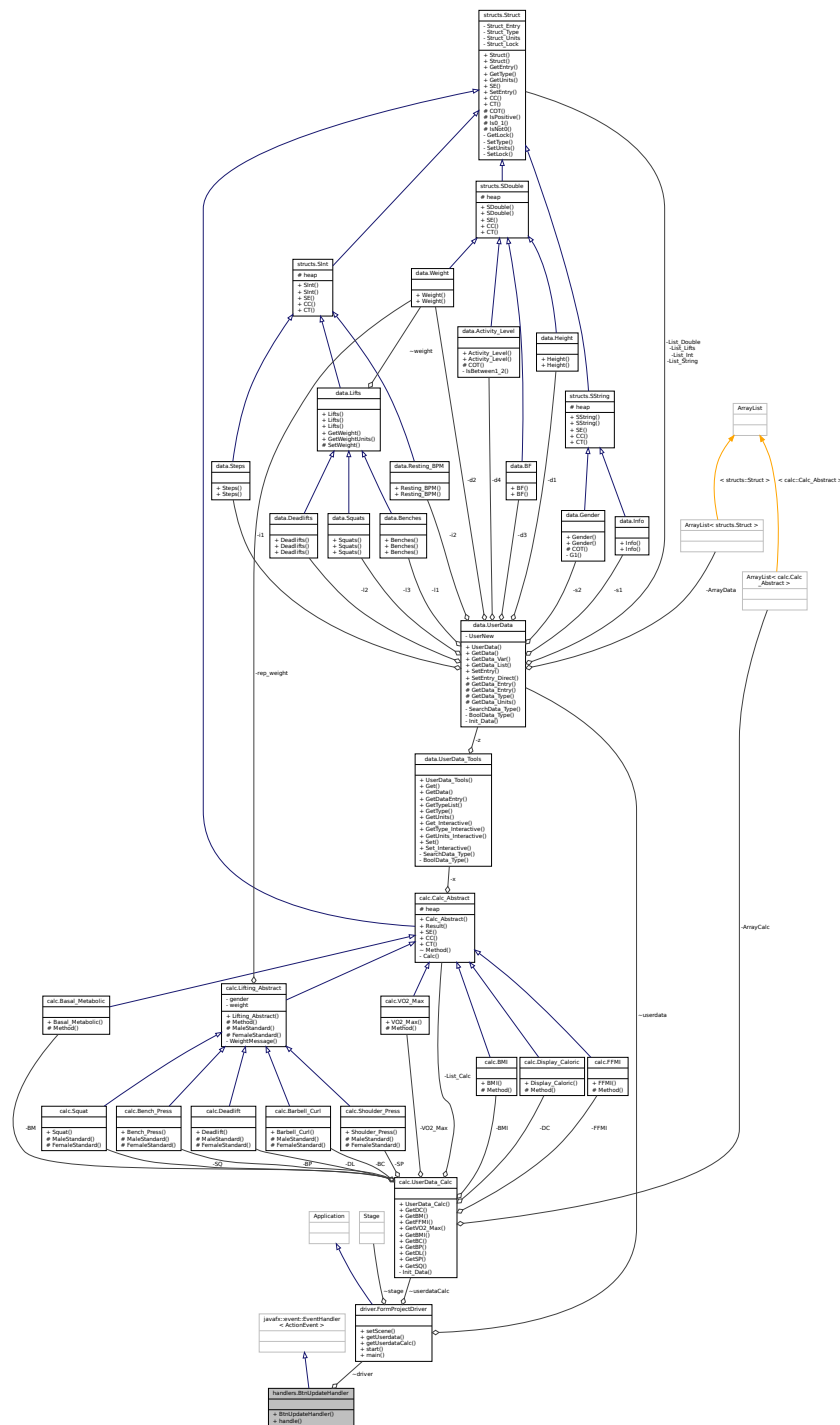
## 6.18 handlers.BtnUpdateHandler Class Reference

Inheritance diagram for handlers.BtnUpdateHandler:





Collaboration diagram for handlers.BtnUpdateHandler:



## Public Member Functions

- BtnUpdateHandler (FormProjectDriver driver)
- void handle (ActionEvent event)

## Package Attributes

- FormProjectDriver driver

## 6.18.1 Constructor & Destructor Documentation

### 6.18.1.1 BtnUpdateHandler()

```
handlers.BtnUpdateHandler.BtnUpdateHandler (
    FormProjectDriver driver )
```

## 6.18.2 Member Function Documentation

### 6.18.2.1 handle()

```
void handlers.BtnUpdateHandler.handle (
    ActionEvent event )
```

## 6.18.3 Member Data Documentation

### 6.18.3.1 driver

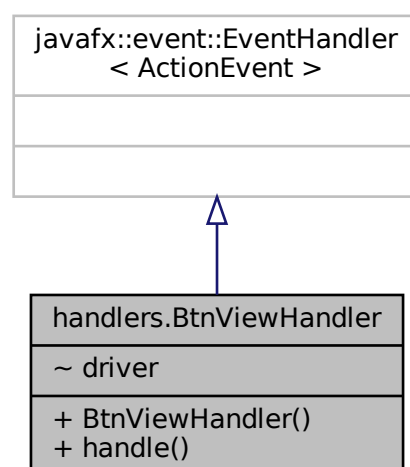
```
FormProjectDriver handlers.BtnUpdateHandler.driver [package]
```

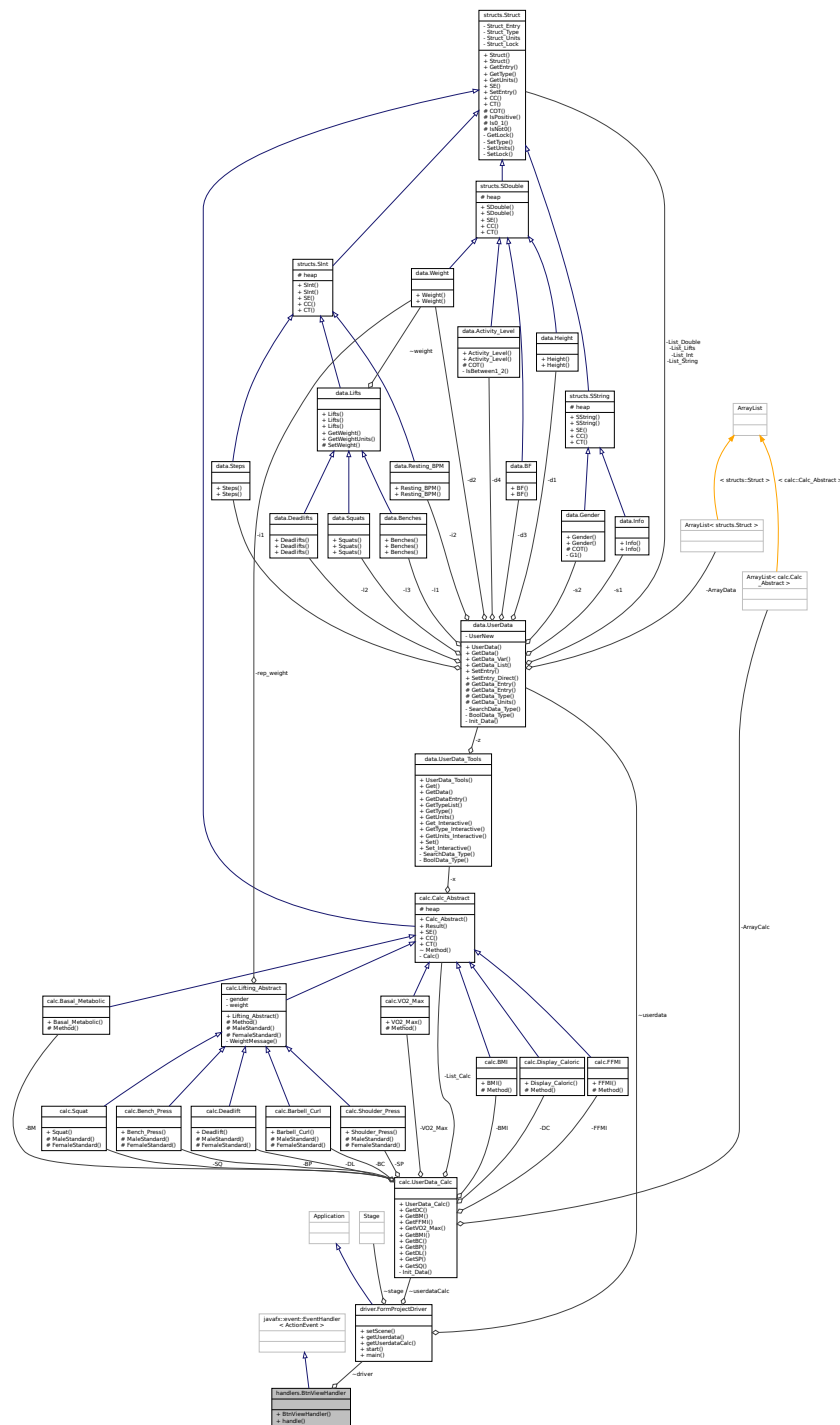
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/gui/handlers/BtnUpdateHandler.java](#)

## 6.19 handlers.BtnViewHandler Class Reference

Inheritance diagram for handlers.BtnViewHandler:





## Public Member Functions

- BtnViewHandler (FormProjectDriver driver)
- void handle (ActionEvent event)

## Package Attributes

- FormProjectDriver driver

## 6.19.1 Constructor & Destructor Documentation

### 6.19.1.1 BtnViewHandler()

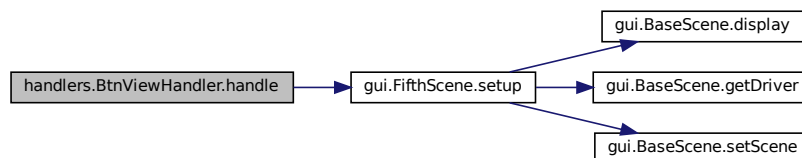
```
handlers.BtnViewHandler.BtnViewHandler (
    FormProjectDriver driver )
```

## 6.19.2 Member Function Documentation

### 6.19.2.1 handle()

```
void handlers.BtnViewHandler.handle (
    ActionEvent event )
```

Here is the call graph for this function:



## 6.19.3 Member Data Documentation

### 6.19.3.1 driver

```
FormProjectDriver handlers.BtnViewHandler.driver [package]
```

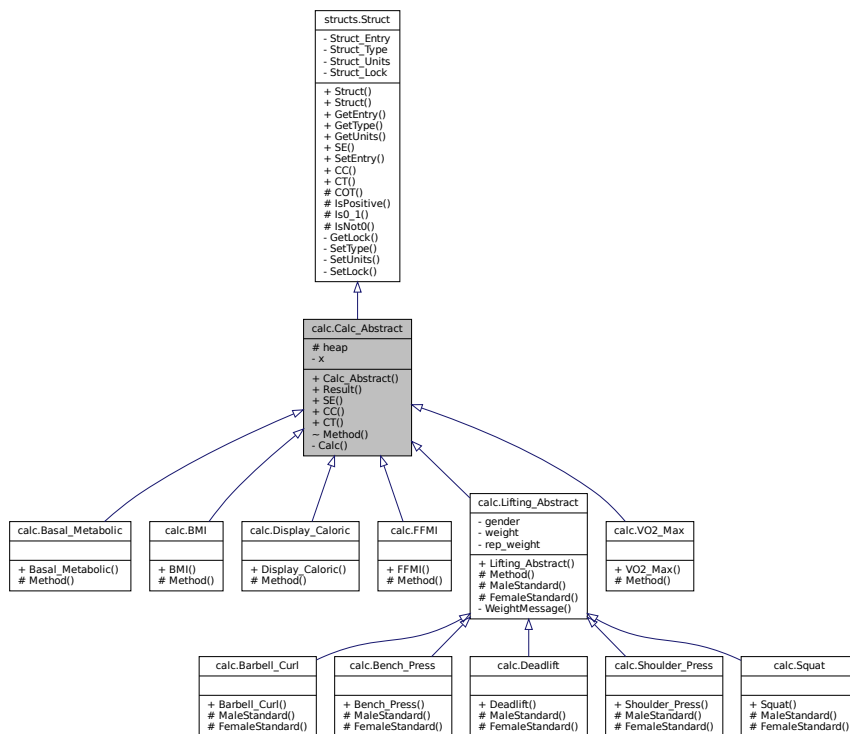
The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/gui/handlers/BtnViewHandler.java`

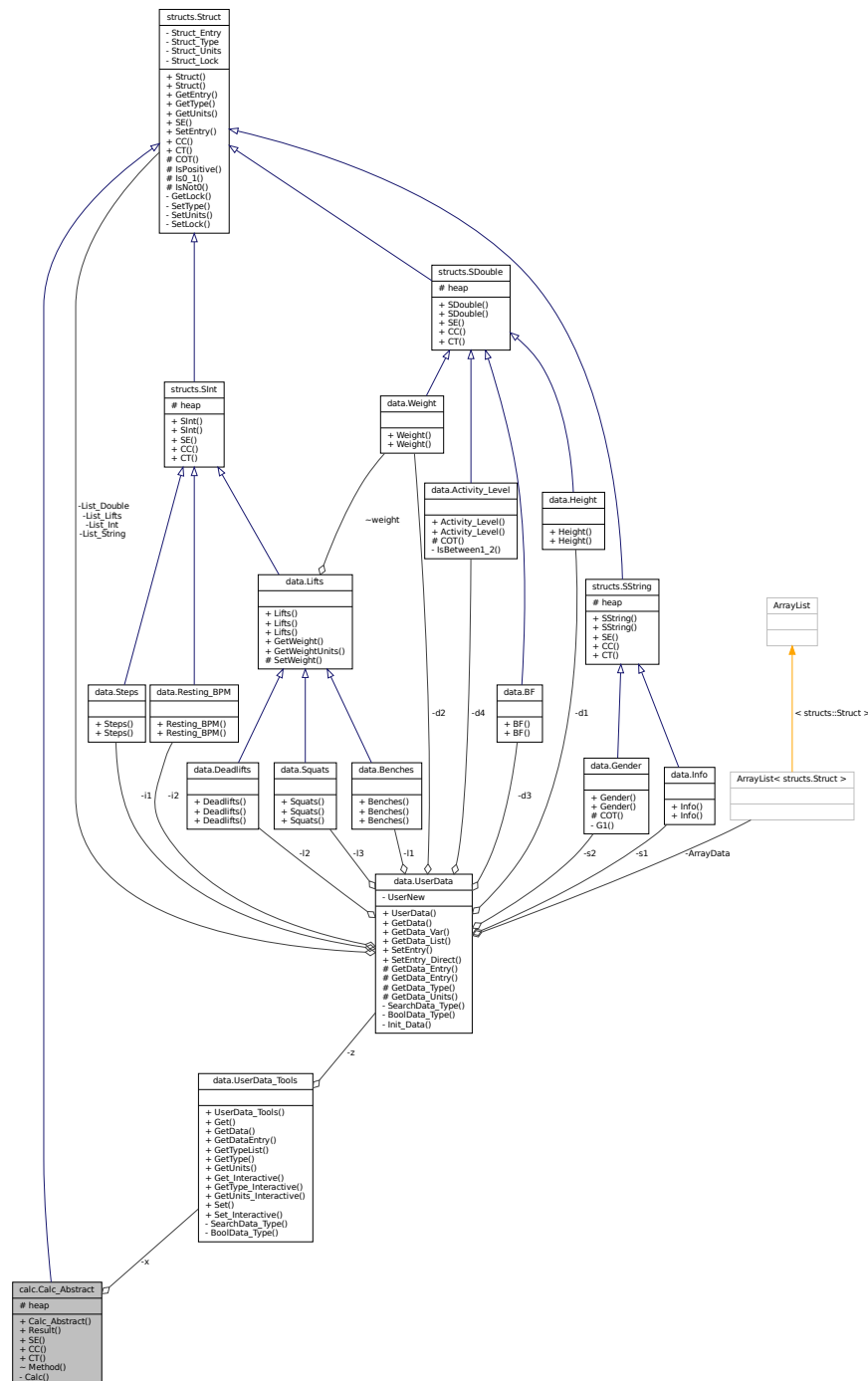
## 6.20 calc.Calc\_Abstract Class Reference

Contains abstract methods to calculate and return calculations.

Inheritance diagram for calc.Calc\_Abstract:



Collaboration diagram for calc.Calc\_Abstract:



## Public Member Functions

- `Calc_Abstract` (`UserData z`, `String Type`, `String Units`)  
Initializes `Calc_Abstract` with the `#UserData`.
- Object `Result` ()  
Returns the value of the calculation.
- boolean `SE` (Object `o`)

- boolean [CC](#) (Object o)
- boolean [CT](#) (Object o)

*Checks if the object for input is valid for entry.*

## Protected Attributes

- Object [heap](#)

*Temporary heap for calculations.*

## Package Functions

- abstract Object [Method](#) ([UserData\\_Tools](#) use)

*Abstract class to force a method for calculation.*

## Private Member Functions

- void [Calc](#) ()

*Runs the methods for calculations.*

## Private Attributes

- [UserData\\_Tools](#) x

*Calls #UserData\_Tools to get values of the #UserData.*

## Additional Inherited Members

### 6.20.1 Detailed Description

Contains abstract methods to calculate and return calculations.

It is a subclass of [Struct](#).

### 6.20.2 Constructor & Destructor Documentation

#### 6.20.2.1 Calc\_Abstract()

```
calc.Calc_Abstract.Calc_Abstract (
    UserData z,
    String Type,
    String Units )
```

Initializes [Calc\\_Abstract](#) with the #UserData.



## Parameters

<i>z</i>	User's data.
<i>Type</i>	The type of the calculation.
<i>Units</i>	The units of the calculation.

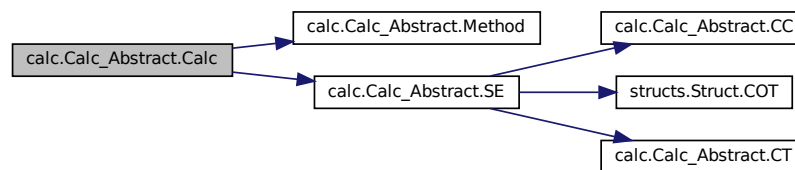
## 6.20.3 Member Function Documentation

## 6.20.3.1 Calc()

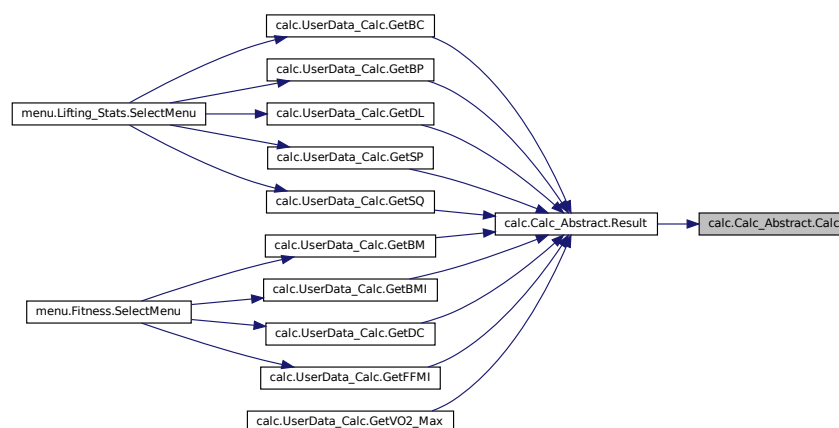
```
void calc.Calc_Abstract.Calc ( ) [private]
```

Runs the methods for calculations.

Here is the call graph for this function:



Here is the caller graph for this function:



### 6.20.3.2 CC()

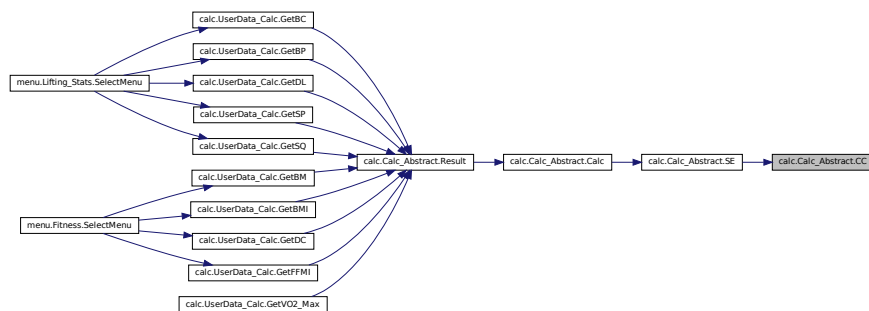
```
boolean calc.Calc_Abstract.CC (
    Object o )
```

See also

#Struct.CC

Reimplemented from [structs.Struct](#).

Here is the caller graph for this function:



### 6.20.3.3 CT()

```
boolean calc.Calc_Abstract.CT (
    Object o )
```

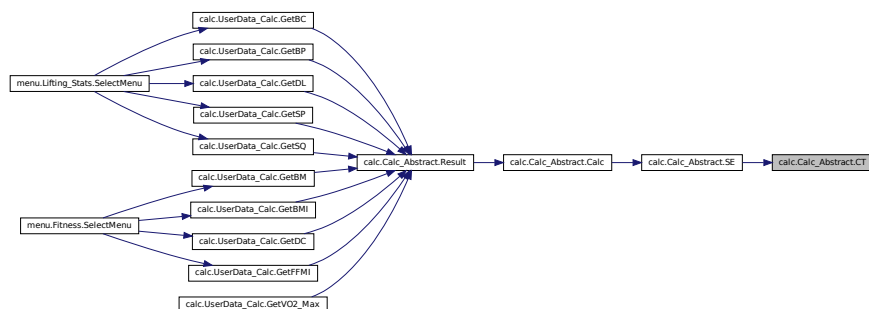
Checks if the object for input is valid for entry.

See also

#Struct.CT

Reimplemented from [structs.Struct](#).

Here is the caller graph for this function:



### 6.20.3.4 Method()

```
abstract Object calc.Calc_Abstract.Method (
    UserData_Tools use ) [abstract], [package]
```

Abstract class to force a method for calculation.

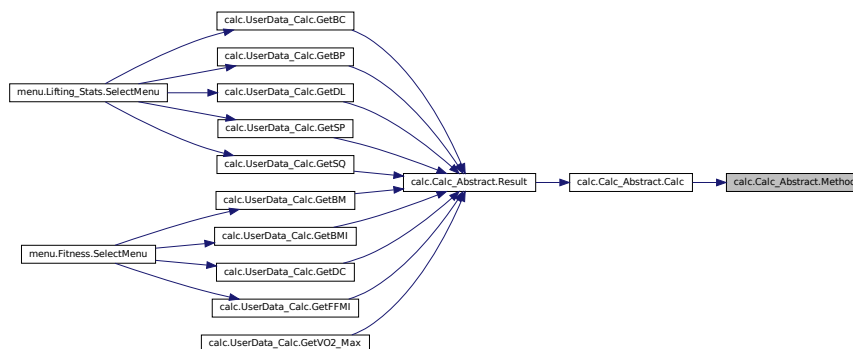
Uses the #UserData\_Tools for accessing the values for calculation.

#### Parameters

<i>use</i>	Data to use.
------------	--------------

Reimplemented in [calc.Display\\_Caloric](#), [calc.Lifting\\_Abstract](#), [calc.FFMI](#), [calc.Basal\\_Metabolic](#), [calc.BMI](#), and [calc.VO2\\_Max](#).

Here is the caller graph for this function:



### 6.20.3.5 Result()

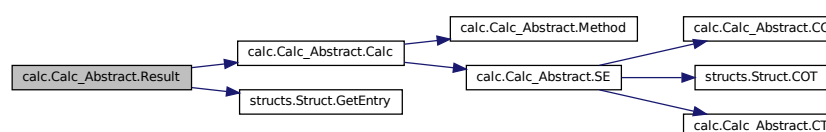
```
Object calc.Calc_Abstract.Result ( )
```

Returns the value of the calculation.

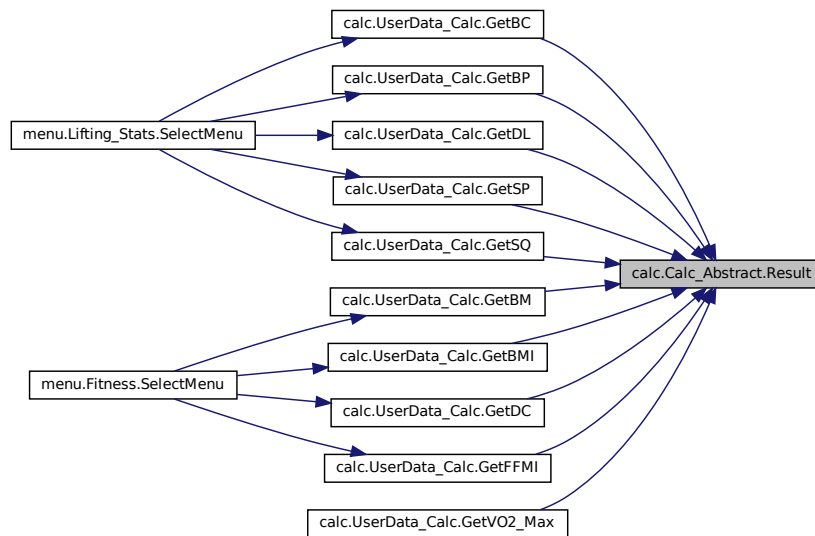
#### Returns

#Struct.GetEntry

Here is the call graph for this function:



Here is the caller graph for this function:



#### 6.20.3.6 SE()

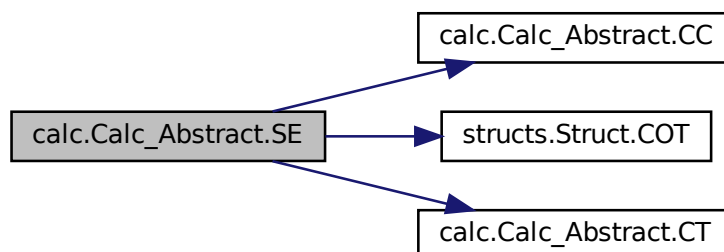
```
boolean calc.Calc_Abstract.SE (
    Object o )
```

See also

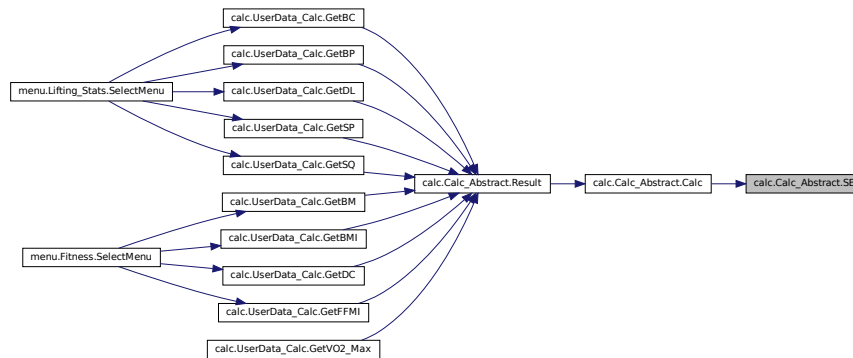
`#Struct.SE`

Reimplemented from [structs.Struct](#).

Here is the call graph for this function:



Here is the caller graph for this function:



## 6.20.4 Member Data Documentation

### 6.20.4.1 heap

Object `calc.Calc_Abstract.heap` [protected]

Temporary heap for calculations.

### 6.20.4.2 x

`UserData_Tools` `calc.Calc_Abstract.x` [private]

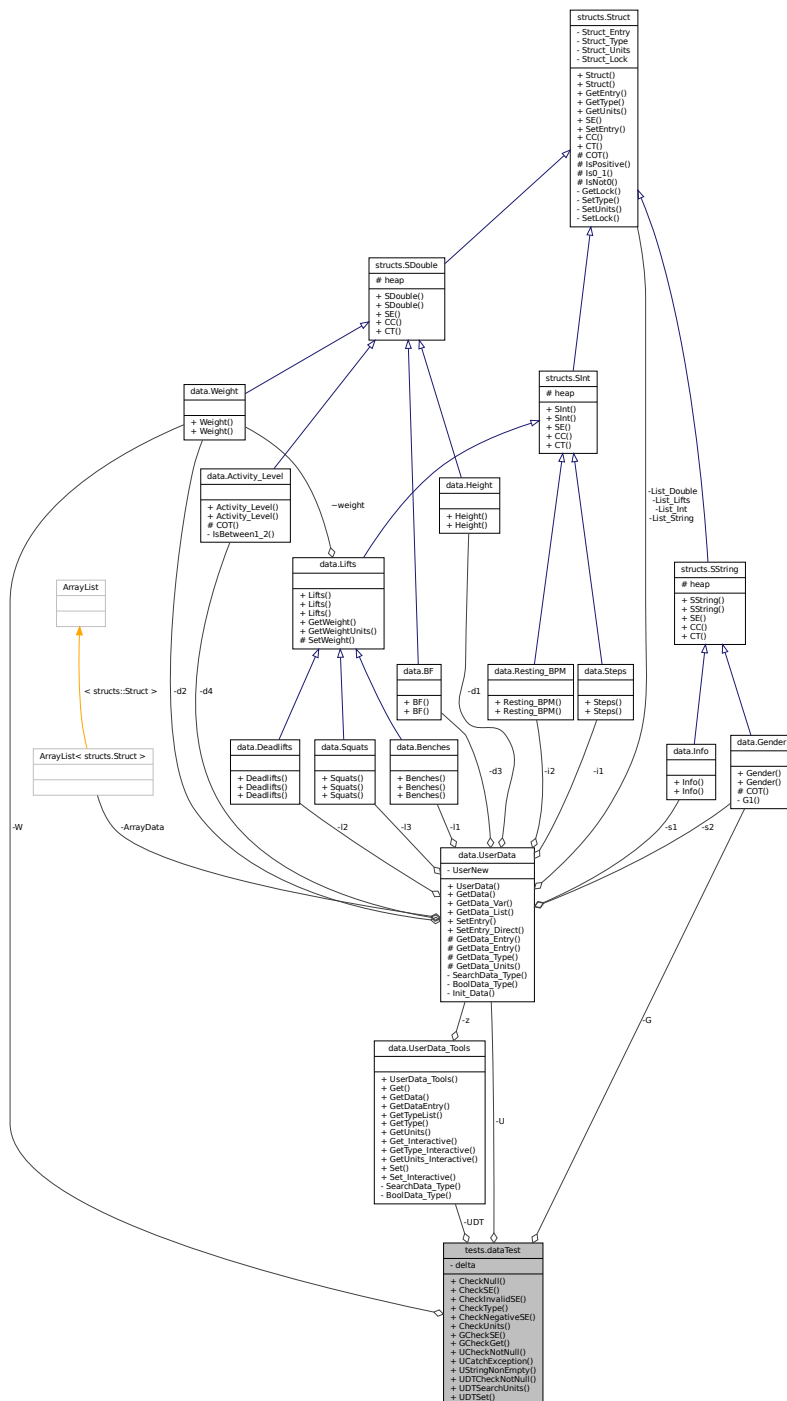
Calls `#UserData_Tools` to get values of the `#UserData`.

The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/calc/Calc_Abstract.java`

## 6.21 tests.dataTest Class Reference

Collaboration diagram for tests.dataTest:



### Public Member Functions

- void [CheckNull](#) ()
- void [CheckSE](#) ()

- void [CheckInvalidSE](#) ()
- void [CheckType](#) ()
- void [CheckNegativeSE](#) ()
- void [CheckUnits](#) ()
- void [GCheckSE](#) ()
- void [GCheckGet](#) ()
- void [UCheckNotNull](#) ()
- void [UCatchException](#) ()
- void [UStringNonEmpty](#) ()
- void [UDTCheckNotNull](#) ()
- void [UDTSearchUnits](#) ()
- void [UDTSet](#) ()

## Private Attributes

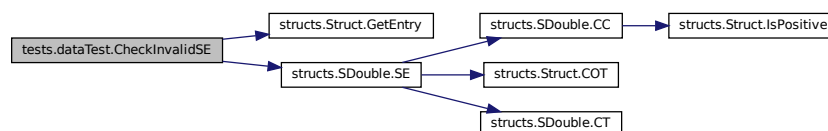
- [Weight](#) W = new [Weight](#)()
- double [delta](#) = 0.0000001
- [Gender](#) G = new [Gender](#)()
- [UserData](#) U = new [UserData](#)()
- [UserData\\_Tools](#) UDT = new [UserData\\_Tools](#)(U)

## 6.21.1 Member Function Documentation

### 6.21.1.1 CheckInvalidSE()

```
void tests.dataTest.CheckInvalidSE ( )
```

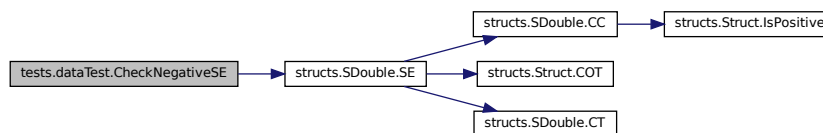
Here is the call graph for this function:



### 6.21.1.2 CheckNegativeSE()

```
void tests.dataTest.CheckNegativeSE ( )
```

Here is the call graph for this function:



### 6.21.1.3 CheckNull()

```
void tests.dataTest.CheckNull ( )
```

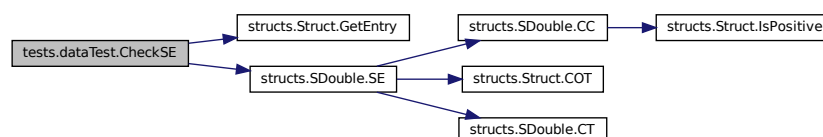
Here is the call graph for this function:



### 6.21.1.4 CheckSE()

```
void tests.dataTest.CheckSE ( )
```

Here is the call graph for this function:





### 6.21.1.5 CheckType()

```
void tests.dataTest.CheckType ( )
```

Here is the call graph for this function:



### 6.21.1.6 CheckUnits()

```
void tests.dataTest.CheckUnits ( )
```

Here is the call graph for this function:



### 6.21.1.7 GCheckGet()

```
void tests.dataTest.GCheckGet ( )
```

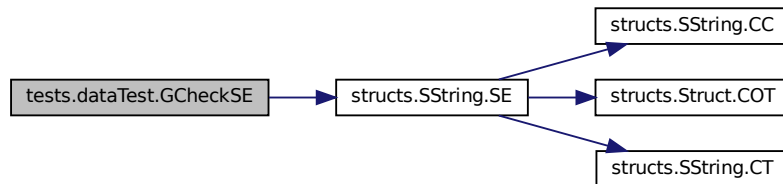
Here is the call graph for this function:



#### 6.21.1.8 GCheckSE()

```
void tests.dataTest.GCheckSE ( )
```

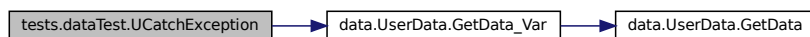
Here is the call graph for this function:



#### 6.21.1.9 UCatchException()

```
void tests.dataTest.UCatchException ( )
```

Here is the call graph for this function:



#### 6.21.1.10 UCheckNotNull()

```
void tests.dataTest.UCheckNotNull ( )
```

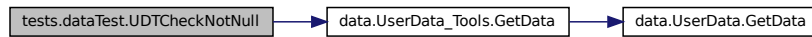
Here is the call graph for this function:



### 6.21.1.11 UDTCheckNotNull()

```
void tests.dataTest.UDTCheckNotNull ( )
```

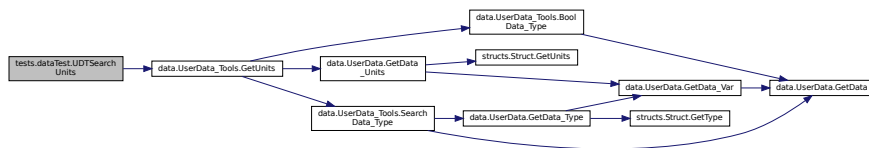
Here is the call graph for this function:



### 6.21.1.12 UDTSearchUnits()

```
void tests.dataTest.UDTSearchUnits ( )
```

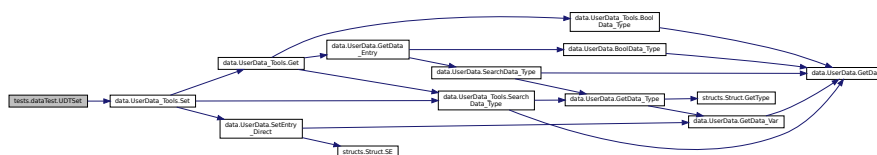
Here is the call graph for this function:



### 6.21.1.13 UDTSet()

```
void tests.dataTest.UDTSet ( )
```

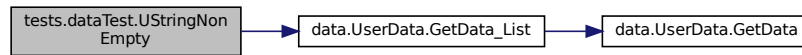
Here is the call graph for this function:



### 6.21.1.14 UStringNonEmpty()

```
void tests.dataTest.UStringNonEmpty ( )
```

Here is the call graph for this function:



## 6.21.2 Member Data Documentation

### 6.21.2.1 delta

```
double tests.dataTest.delta = 0.0000001 [private]
```

### 6.21.2.2 G

```
Gender tests.dataTest.G = new Gender() [private]
```

### 6.21.2.3 U

```
UserData tests.dataTest.U = new UserData() [private]
```

### 6.21.2.4 UDT

```
UserData_Tools tests.dataTest.UDT = new UserData_Tools(U) [private]
```

### 6.21.2.5 W

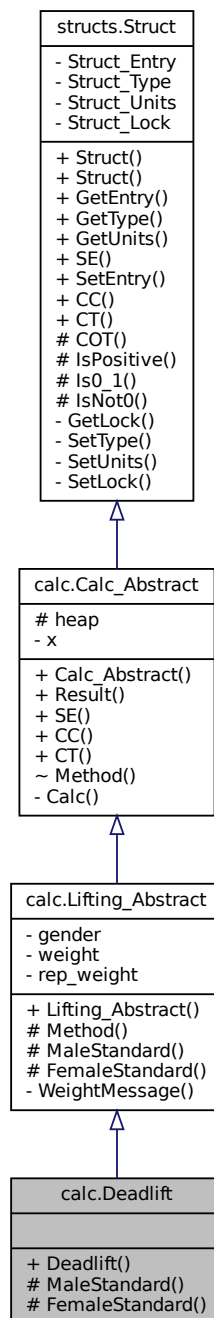
```
Weight tests.dataTest.W = new Weight() [private]
```

The documentation for this class was generated from the following file:

- /home/jamie/java/forms\_project/src/lib/tests/[dataTest.java](#)

## 6.22 calc.Deadlift Class Reference

Inheritance diagram for calc.Deadlift:





## Additional Inherited Members

### 6.22.1 Constructor & Destructor Documentation

#### 6.22.1.1 Deadlift()

```
calc.Deadlift.Deadlift (
    UserData z )
```

### 6.22.2 Member Function Documentation

#### 6.22.2.1 FemaleStandard()

```
String calc.Deadlift.FemaleStandard (
    int weight,
    int rweight ) [protected]
```

Reimplemented from [calc.Lifting\\_Abstract](#).

#### 6.22.2.2 MaleStandard()

```
String calc.Deadlift.MaleStandard (
    int weight,
    int rweight ) [protected]
```

Reimplemented from [calc.Lifting\\_Abstract](#).

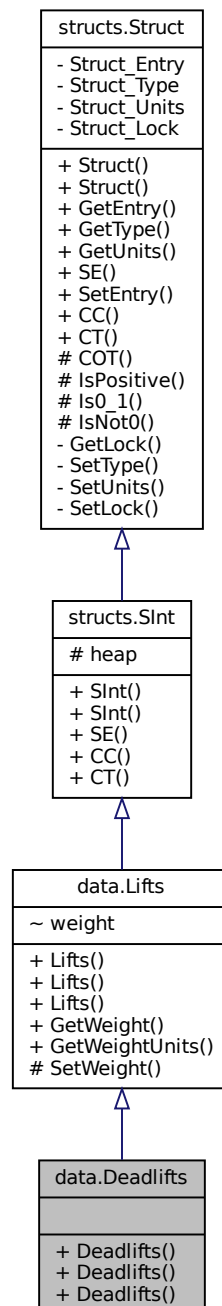
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/calc/Deadlift.java](#)

## 6.23 data.Deadlifts Class Reference

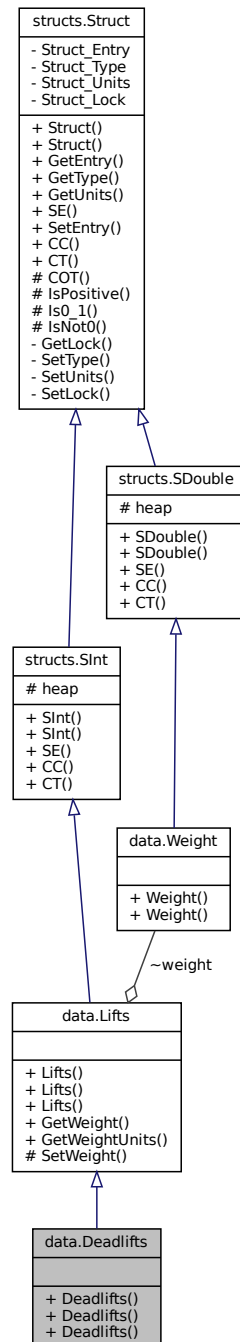
The class that holds [Deadlifts](#) data.

Inheritance diagram for data.Deadlifts:





Collaboration diagram for data.Deadlifts:



## Public Member Functions

- [Deadlifts](#) ()  
Constructor with null values in both reps and weight.
- [Deadlifts](#) (int o)  
Constructor with a defined reps value.
- [Deadlifts](#) (int o, double p)  
Constructor with a defined reps value, and a weight value.

## Additional Inherited Members

### 6.23.1 Detailed Description

The class that holds [Deadlifts](#) data.

### 6.23.2 Constructor & Destructor Documentation

#### 6.23.2.1 Deadlifts() [1/3]

```
data.Deadlifts.Deadlifts ( )
```

Constructor with null values in both reps and weight.

#### 6.23.2.2 Deadlifts() [2/3]

```
data.Deadlifts.Deadlifts (
    int o )
```

Constructor with a defined reps value.

##### Parameters

<i>o</i>	The value of the reps.
----------	------------------------

#### 6.23.2.3 Deadlifts() [3/3]

```
data.Deadlifts.Deadlifts (
    int o,
    double p )
```

Constructor with a defined reps value, and a weight value.

##### Parameters

<i>o</i>	The value of the reps.
<i>p</i>	The value of the weight.

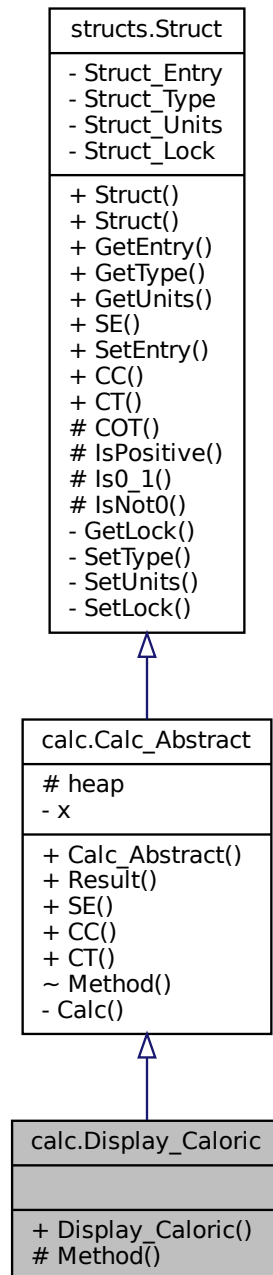
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/data/Deadlifts.java](/home/jamie/java/forms_project/src/lib/data/Deadlifts.java)

## 6.24 calc.Display\_Caloric Class Reference

Calculates and returns Display Caloric values.

Inheritance diagram for calc.Display\_Caloric:





## Protected Member Functions

- Object [Method](#) ([UserData\\_Tools](#) use)  
*The body of the calculations.*

## Additional Inherited Members

### 6.24.1 Detailed Description

Calculates and returns Display Caloric values.

### 6.24.2 Constructor & Destructor Documentation

#### 6.24.2.1 Display\_Caloric()

```
calc.Display_Caloric.Display_Caloric (
    UserData z )
```

Constructor for the class that uses #UserData.

##### Parameters

z	User's data.
---	--------------

### 6.24.3 Member Function Documentation

#### 6.24.3.1 Method()

```
Object calc.Display_Caloric.Method (
    UserData_Tools use ) [protected]
```

The body of the calculations.

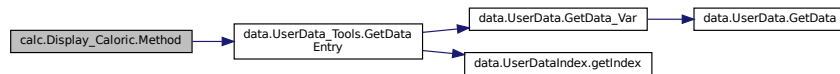
##### Parameters

use	Instance of using the user's values to calculate the value of the class.
-----	--

Daily Calorie Requirement = BMR \* Activity Factor  
Sedentary (little to no exercise + work a desk job) = 1.2  
Lightly Active (light exercise 1-3 days / week) = 1.375  
Moderately Active (moderate exercise 3-5 days / week) = 1.55  
Very Active (heavy exercise 6-7 days / week) = 1.725  
Extremely Active (very heavy exercise, hard labor job, training 2x / day) = 1.9

Reimplemented from [calc.Calc\\_Abstract](#).

Here is the call graph for this function:



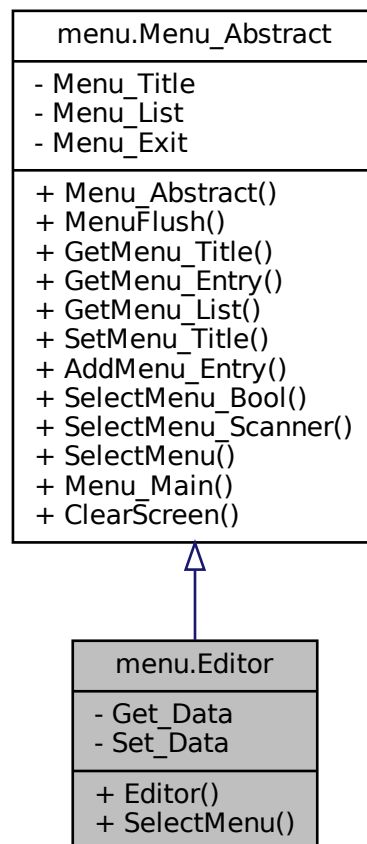
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/calc/Display\\_Caloric.java](#)

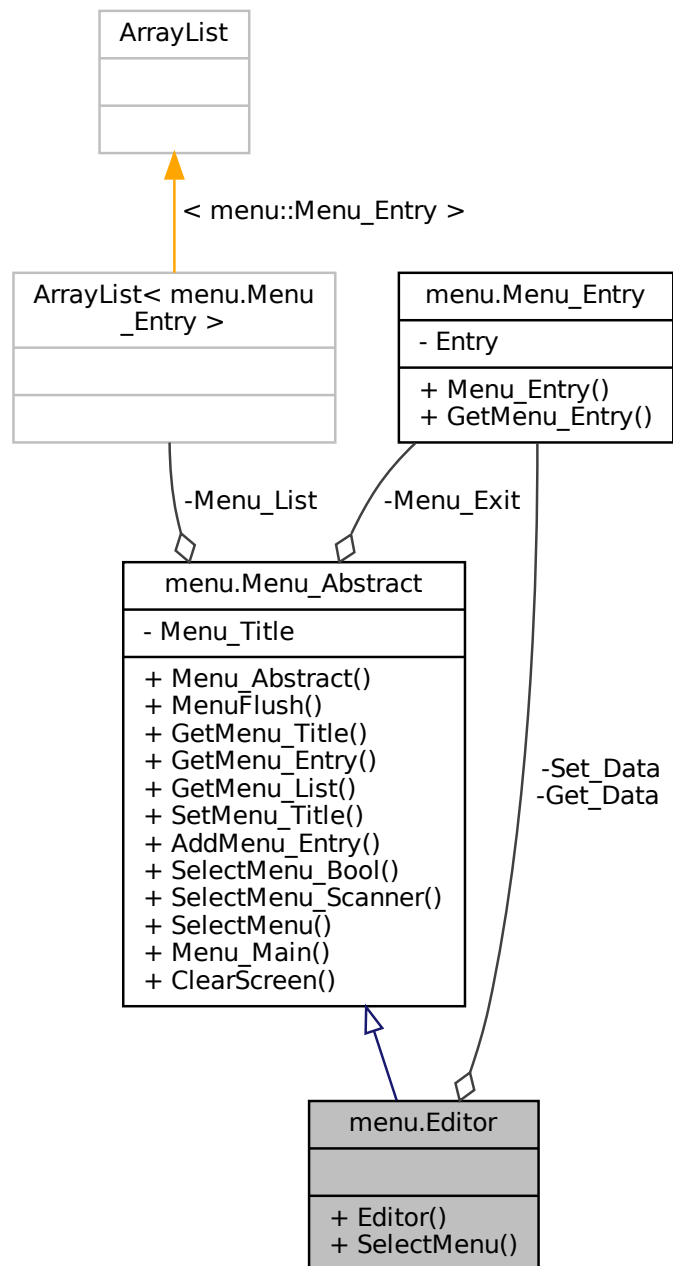
## 6.25 menu.Editor Class Reference

The main menu for choosing either to get values or set values in the main program.

Inheritance diagram for menu.Editor:



Collaboration diagram for menu.Editor:



## Public Member Functions

- [Editor](#) ()  
Constructor that builds the [Editor](#) Menu.
- void [SelectMenu](#) (int choice, [UserData](#) z)  
Access either the `#Editor_Get` or `#Editor_Set` classes.

## Private Attributes

- `Menu_Entry Get_Data` = new `Menu_Entry`("Get Data")  
*#Menu\_Entry to access the #Editor\_Get class.*
- `Menu_Entry Set_Data` = new `Menu_Entry`("Set Data")  
*#Menu\_Entry to access the #Editor\_Set class.*

## Additional Inherited Members

### 6.25.1 Detailed Description

The main menu for choosing either to get values or set values in the main program.

### 6.25.2 Constructor & Destructor Documentation

#### 6.25.2.1 Editor()

```
menu.Editor.Editor ( )
```

Constructor that builds the `Editor` Menu.

Here is the call graph for this function:



### 6.25.3 Member Function Documentation

#### 6.25.3.1 SelectMenu()

```
void menu.Editor.SelectMenu (
    int choice,
    UserData z )
```

Access either the `#Editor_Get` or `#Editor_Set` classes.

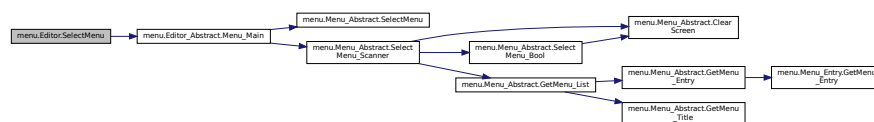


## Parameters

<i>choice</i>	Chooses either Get or Set classes.
<i>z</i>	#UserData that should be edited with.

Reimplemented from [menu.Menu\\_Abstract](#).

Here is the call graph for this function:



## 6.25.4 Member Data Documentation

### 6.25.4.1 Get\_Data

```
Menu_Entry menu.Editor.Get_Data = new Menu_Entry("Get Data") [private]
```

#Menu\_Entry to access the #Editor\_Get class.

### 6.25.4.2 Set\_Data

```
Menu_Entry menu.Editor.Set_Data = new Menu_Entry("Set Data") [private]
```

#Menu\_Entry to access the #Editor\_Set class.

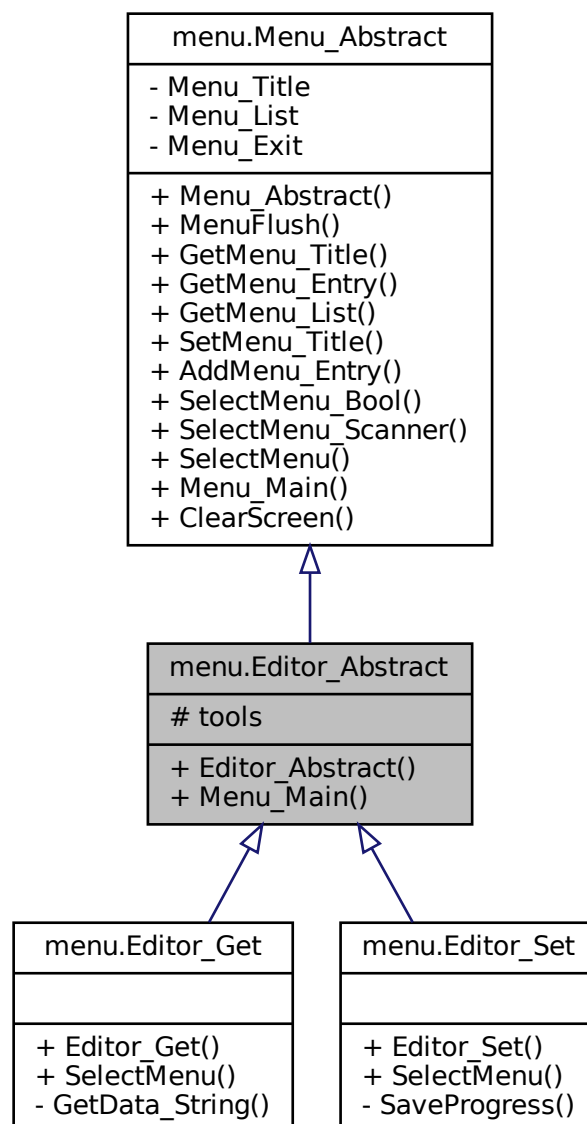
The documentation for this class was generated from the following file:

- /home/jamie/java/forms\_project/src/lib/menu/[Editor.java](#)

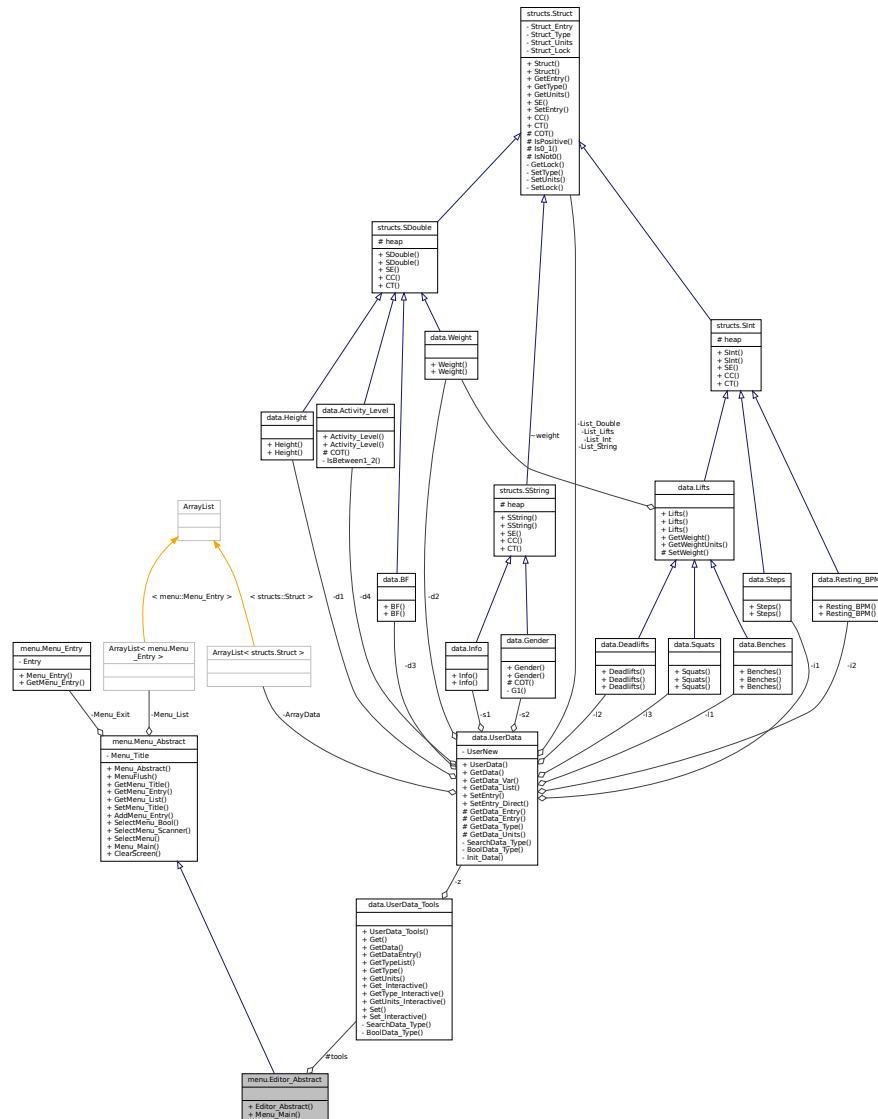
## 6.26 menu.Editor\_Abstract Class Reference

This class extends the abstract class [Menu\\_Abstract](#), which provides the structure for editing and viewing the #↔ UserData.

Inheritance diagram for menu.Editor\_Abstract:



Collaboration diagram for menu.Editor\_Abstract:



## Public Member Functions

- `Editor_Abstract` (String `Menu_Title`, `UserData` z)  
*Constructor that creates the menu title, and takes the current #UserData.*
- `void Menu_Main` (`UserData` z)  
*Main Menu loop to access other objects.*

## Protected Attributes

- `UserData_Tools` tools  
*Initializes the #UserData\_Tools as an object to retrieve information.*

## Additional Inherited Members

### 6.26.1 Detailed Description

This class extends the abstract class [Menu\\_Abstract](#), which provides the structure for editing and viewing the #↵ UserData.

### 6.26.2 Constructor & Destructor Documentation

#### 6.26.2.1 Editor\_Abstract()

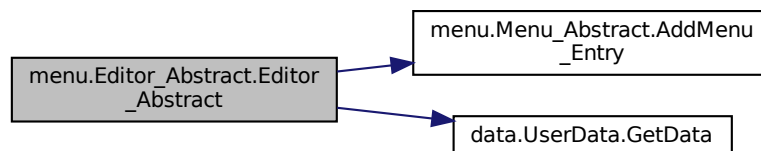
```
menu.Editor_Abstract.Editor_Abstract (
    String Menu_Title,
    UserData z )
```

Constructor that creates the menu title, and takes the current #UserData.

##### Parameters

<i>Menu_Title</i>	The title of the editor interface.
<i>z</i>	The #UserData to be edited or viewed.

Here is the call graph for this function:



### 6.26.3 Member Function Documentation

#### 6.26.3.1 Menu\_Main()

```
void menu.Editor_Abstract.Menu_Main (
    UserData z )
```

[Main](#) Menu loop to access other objects.

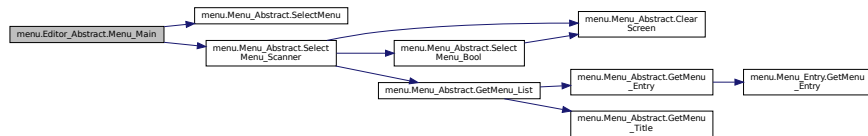
Modified from the previous instance of #Menu\_Abstract.Menu\_Main to accomodate the smaller array size of #↵ UserData when choosing which value to check.

## Parameters

z	Takes some #UserData to be passed through the program.
---	--

Reimplemented from [menu.Menu\\_Abstract](#).

Here is the call graph for this function:



Here is the caller graph for this function:



## 6.26.4 Member Data Documentation

### 6.26.4.1 tools

`UserData_Tools` `menu.Editor_Abstract.tools` [protected]

Initializes the #UserData\_Tools as an object to retrieve information.

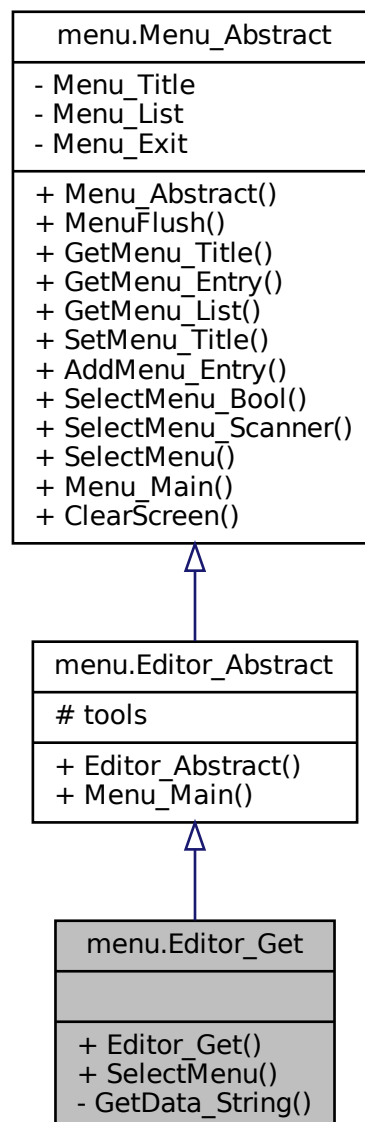
The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/menu/Editor_Abstract.java`

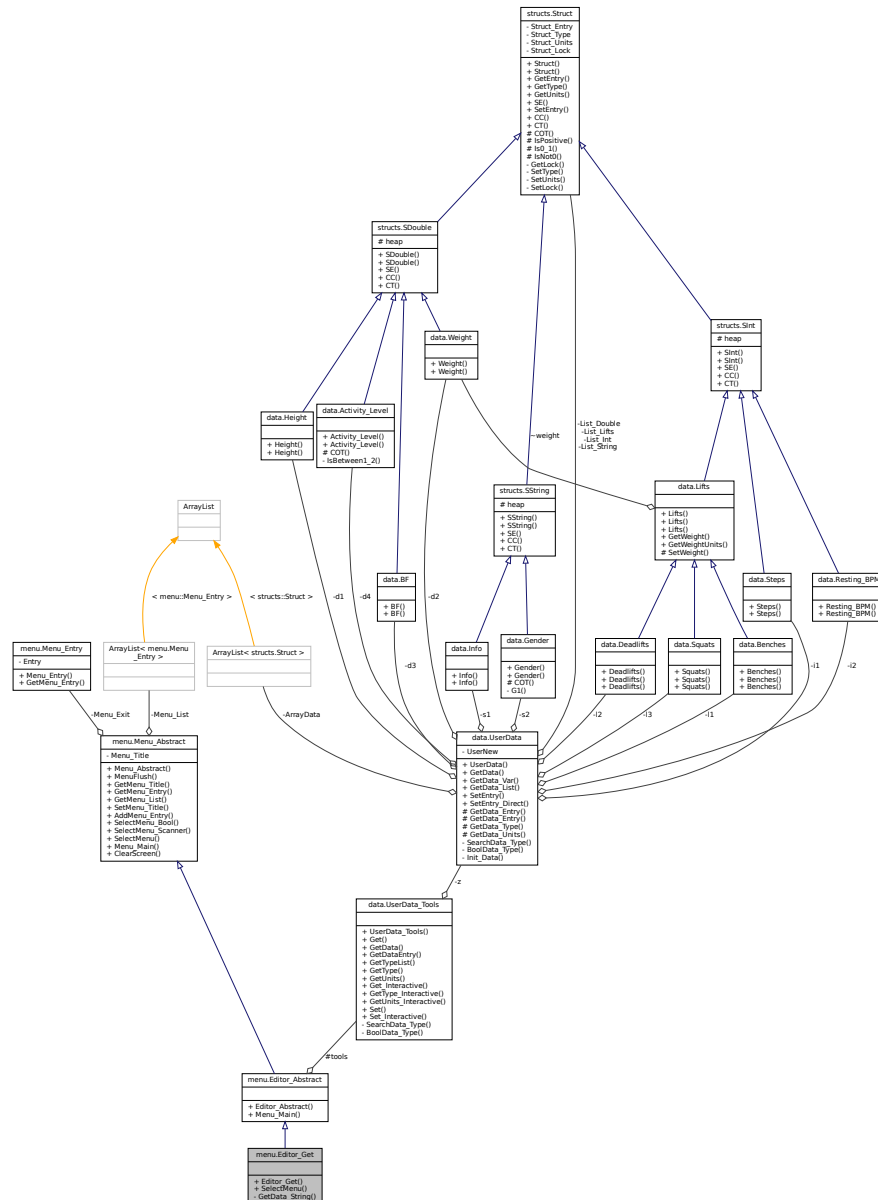
## 6.27 menu.Editor\_Get Class Reference

Class that provides a User Interface to [Editor\\_Abstract](#), specifically to get values.

Inheritance diagram for menu.Editor\_Get:



Collaboration diagram for menu.Editor\_Get:



## Public Member Functions

- `Editor_Get` (`UserData z`)  
*Constructor that initializes the get menu.*
- `void SelectMenu` (`int choice`, `UserData z`)  
*Shows user value when some choice is selected.*

## Private Member Functions

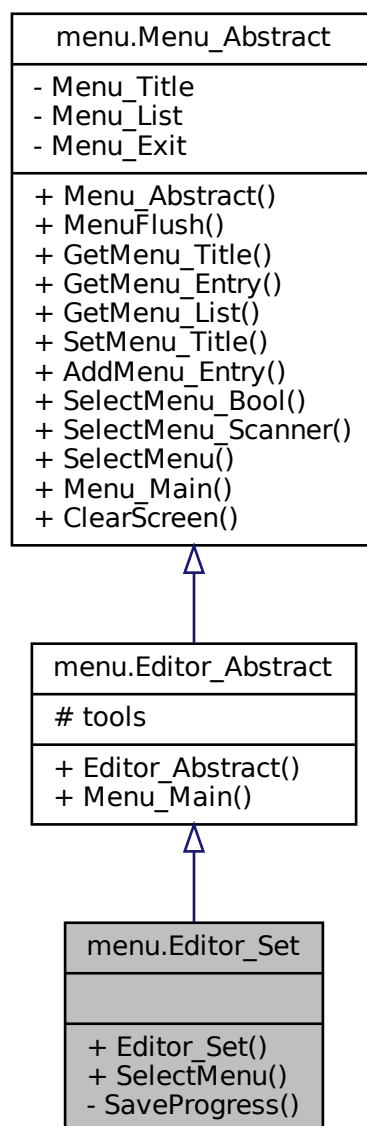
- String `GetData_String` (int choice)  
*Method to display the #UserData's values selected from the index chosen.*







Inheritance diagram for menu.Editor\_Set:



[illegible]

- `Editor_Set (UserData z)`  
*Constructor that creates the `Editor_Set` menu.*

- boolean **SaveProgress** (UserData ToUse)

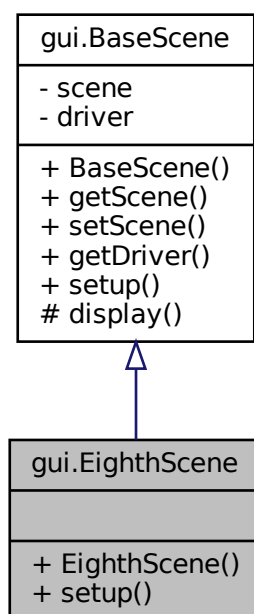
- boolean **SaveProgress** (UserData ToUse)





## 6.29 gui.EighthScene Class Reference

Inheritance diagram for gui.EighthScene:



[illegible]

- EighthScene (FormProjectDriver driver)
- void setup ()

*Sets up the scene (the actual drawing)*

## Additional Inherited Members

### 6.29.1 Constructor & Destructor Documentation

#### 6.29.1.1 EighthScene()

```
gui.EighthScene.EighthScene (
    FormProjectDriver driver )
```

### 6.29.2 Member Function Documentation

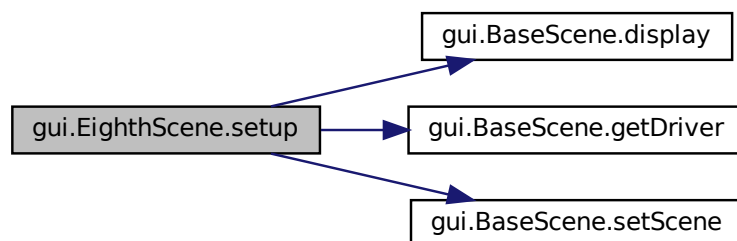
#### 6.29.2.1 setup()

```
void gui.EighthScene.setup ( )
```

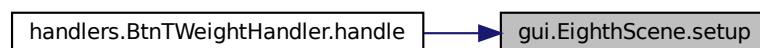
Sets up the scene (the actual drawing)

Reimplemented from [gui.BaseScene](#).

Here is the call graph for this function:



Here is the caller graph for this function:



The documentation for this class was generated from the following file:

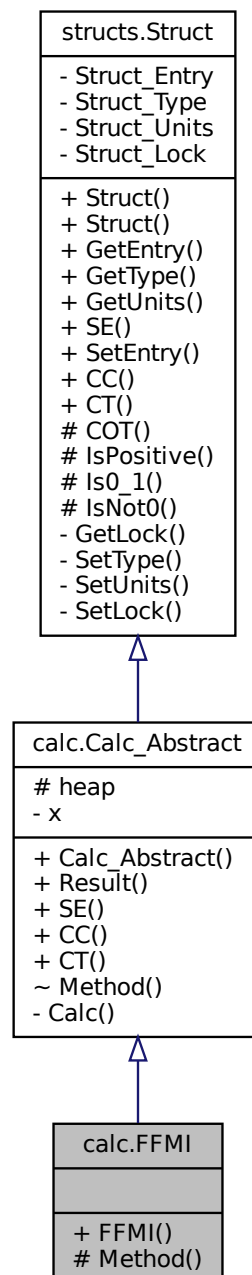
- `/home/jamie/java/forms_project/src/lib/gui/gui/EighthScene.java`



## 6.30 calc.FFMI Class Reference

Calculates and returns [FFMI](#) values.

Inheritance diagram for calc.FFMI:





## Protected Member Functions

- Object [Method](#) ([UserData\\_Tools](#) use)  
*The body of the calculations.*

## Additional Inherited Members

### 6.30.1 Detailed Description

Calculates and returns [FFMI](#) values.

### 6.30.2 Constructor & Destructor Documentation

#### 6.30.2.1 FFMI()

```
calc.FFMI.FFMI (
    UserData z )
```

Constructor for the class that uses #UserData.

##### Parameters

<a href="#">z</a>	User's data.
-------------------	--------------

### 6.30.3 Member Function Documentation

#### 6.30.3.1 Method()

```
Object calc.FFMI.Method (
    UserData\_Tools use ) [protected]
```

The body of the calculations.

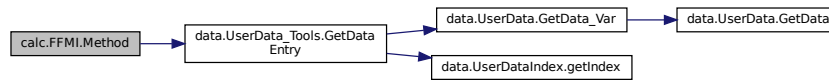
##### Parameters

<a href="#">use</a>	Instance of using the user's values to calculate the value of the class.
---------------------	--

fat free mass = weight [kg] \* (1 - (body fat [%]/ 100)) [FFMI](#) = fat free mass [kg]/ (height [m])<sup>2</sup> normalized [FFMI](#) = [FFMI](#) [kg/m<sup>2</sup>] + 6.1 \* (1.8 - height [m])

Reimplemented from [calc.Calc\\_Abstract](#).

Here is the call graph for this function:

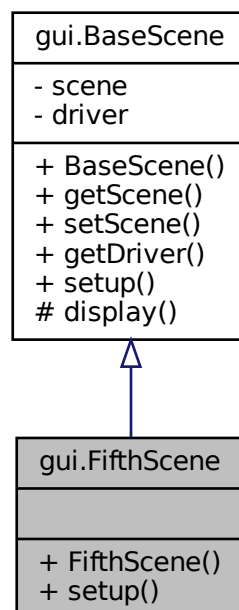


The documentation for this class was generated from the following file:

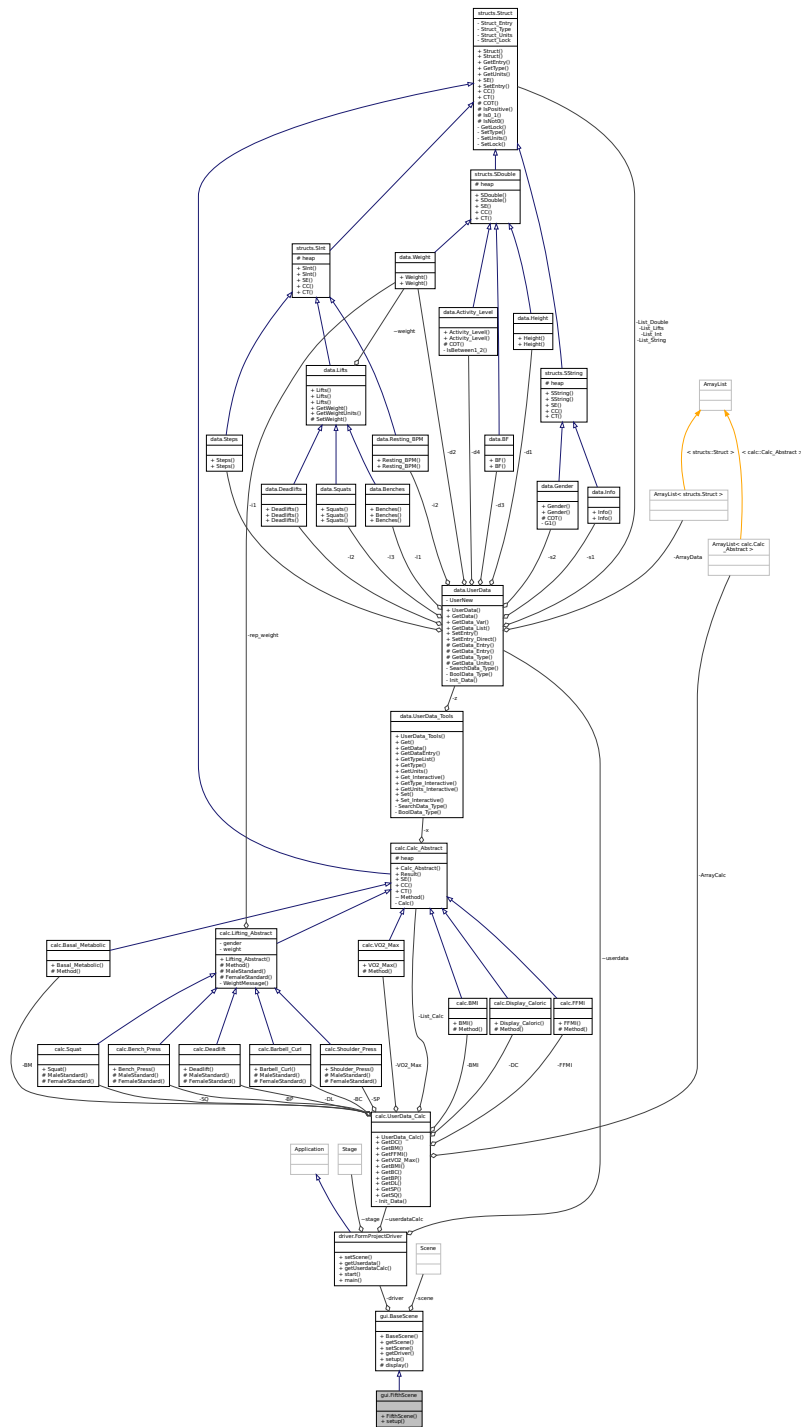
- [/home/jamie/java/forms\\_project/src/lib/calc/FFMI.java](/home/jamie/java/forms_project/src/lib/calc/FFMI.java)

## 6.31 gui.FifthScene Class Reference

Inheritance diagram for `gui.FifthScene`:



Collaboration diagram for gui.FifthScene:



## Public Member Functions

- FifthScene (FormProjectDriver driver)
  - void setup ()
- Sets up the scene (the actual drawing)*

## Additional Inherited Members

### 6.31.1 Constructor & Destructor Documentation

#### 6.31.1.1 FifthScene()

```
gui.FifthScene.FifthScene (
    FormProjectDriver driver )
```

### 6.31.2 Member Function Documentation

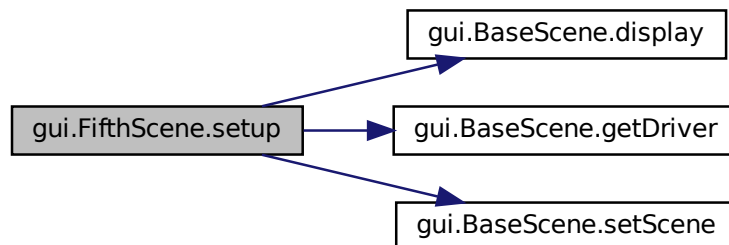
#### 6.31.2.1 setup()

```
void gui.FifthScene.setup ( )
```

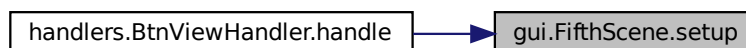
Sets up the scene (the actual drawing)

Reimplemented from [gui.BaseScene](#).

Here is the call graph for this function:



Here is the caller graph for this function:

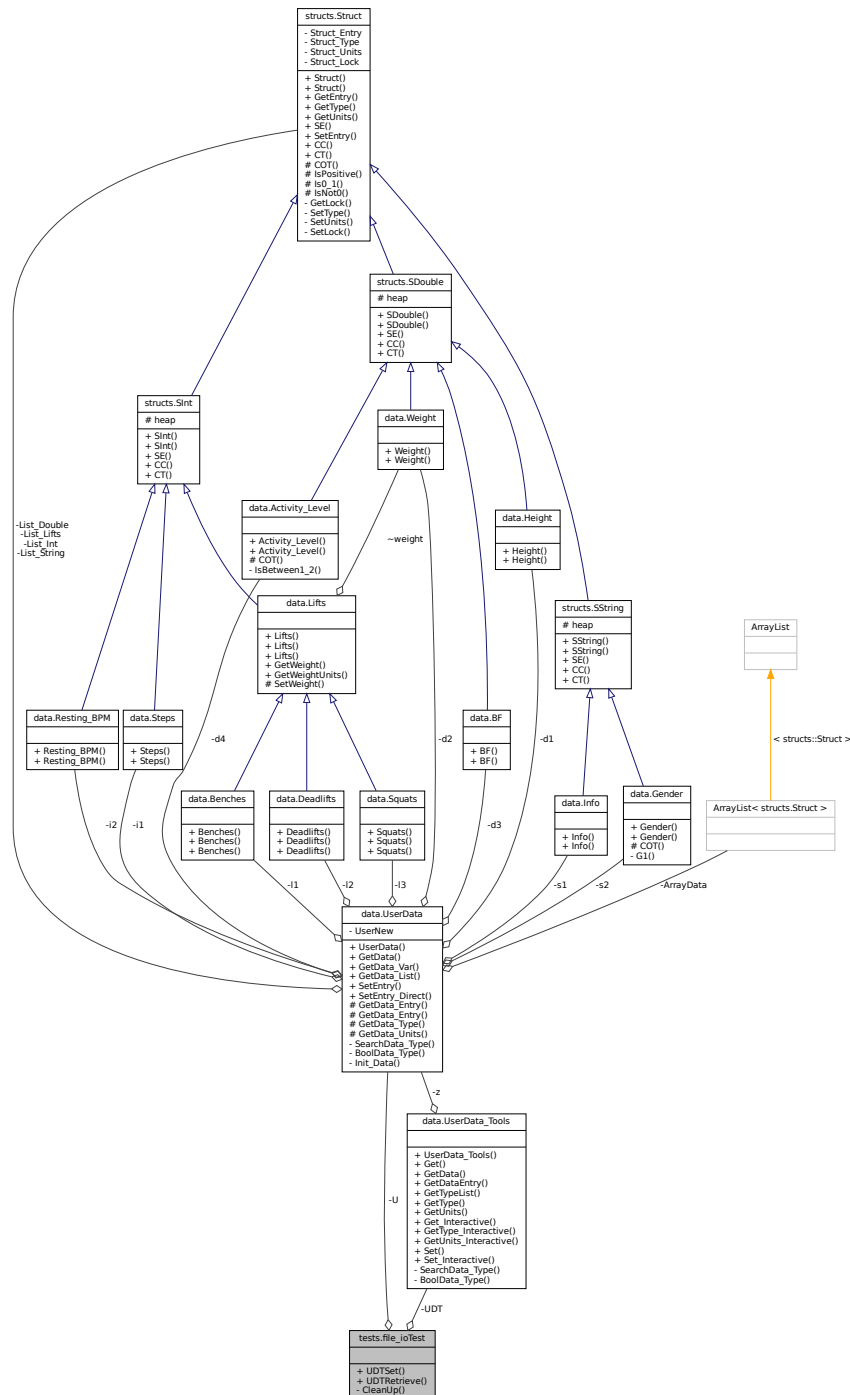


The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/gui/gui/FifthScene.java`

## 6.32 tests.file\_ioTest Class Reference

Collaboration diagram for tests.file\_ioTest:



### Public Member Functions

- void [UDTSet](#) ()
- void [UDTRetrieve](#) ()

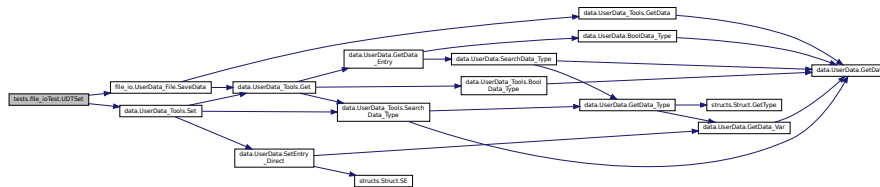




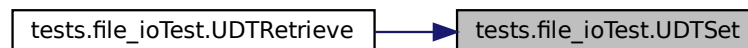
### 6.32.1.3 UDTSet()

```
void tests.file_ioTest.UDTSet ( )
```

Here is the call graph for this function:



Here is the caller graph for this function:



### 6.32.2 Member Data Documentation

### 6.32.2.1 U

```
UserData tests.file_ioTest.U = new UserData() [private]
```

### 6.32.2.2 UDT

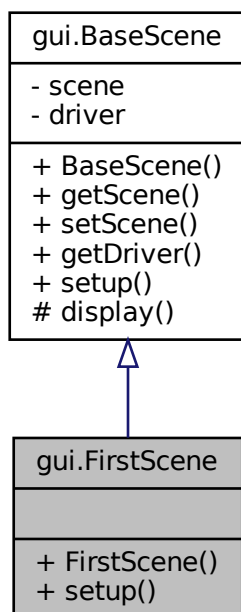
```
UserData_Tools tests.file_ioTest.UDT = new UserData_Tools(U) [private]
```

The documentation for this class was generated from the following file:

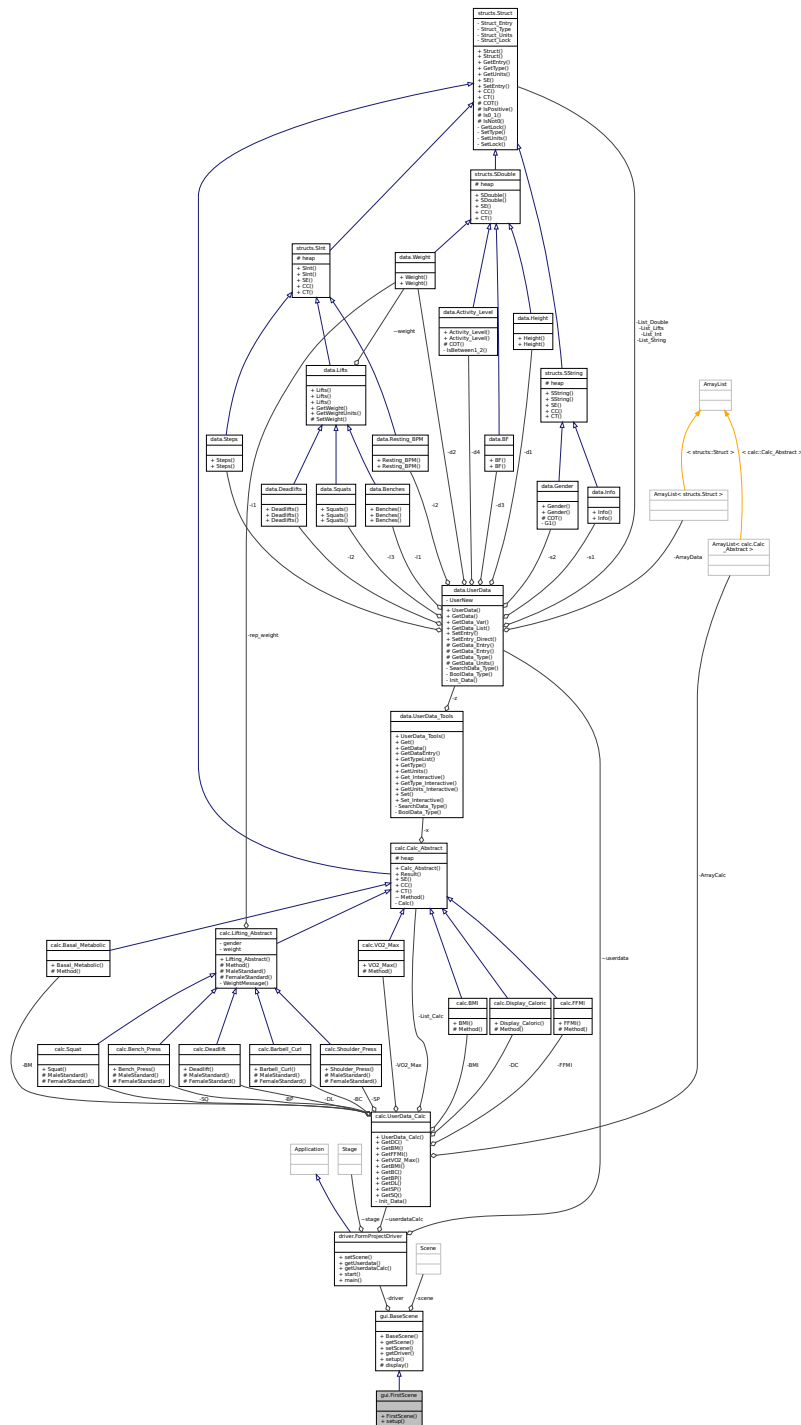
- /home/jamie/java/forms\_project/src/lib/tests/file\_ioTest.java

### 6.33 gui.FirstScene Class Reference

Inheritance diagram for gui.FirstScene:



Collaboration diagram for gui.FirstScene:



## Public Member Functions

- FirstScene (FormProjectDriver driver)
- void setup ()

*Sets up the scene (the actual drawing)*

## Additional Inherited Members

### 6.33.1 Constructor & Destructor Documentation

#### 6.33.1.1 FirstScene()

```
gui.FirstScene.FirstScene (
    FormProjectDriver driver )
```

### 6.33.2 Member Function Documentation

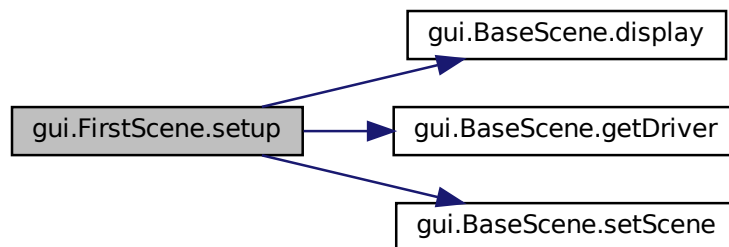
#### 6.33.2.1 setup()

```
void gui.FirstScene.setup ( )
```

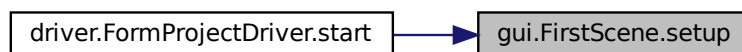
Sets up the scene (the actual drawing)

Reimplemented from [gui.BaseScene](#).

Here is the call graph for this function:



Here is the caller graph for this function:



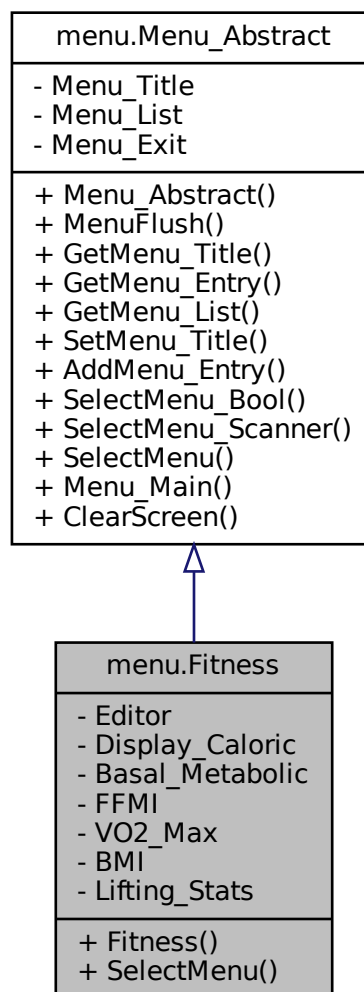
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/gui/gui/FirstScene.java](#)

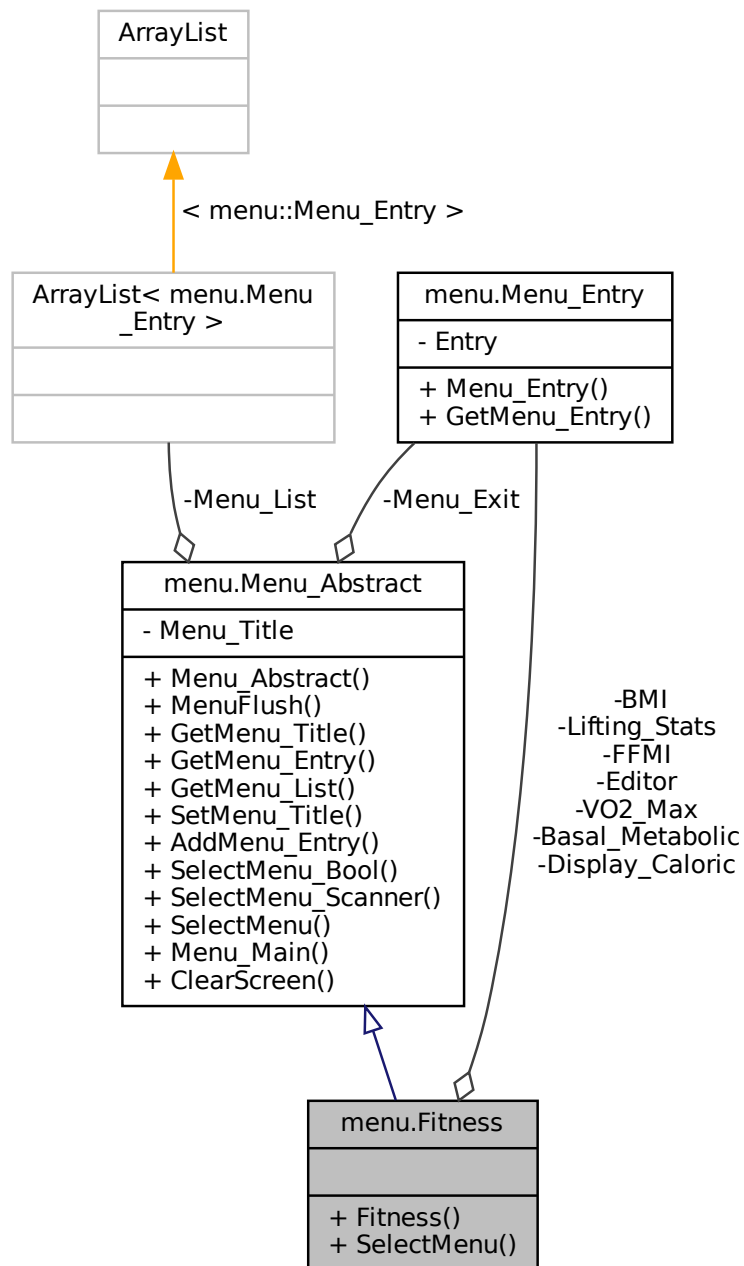
## 6.34 menu.Fitness Class Reference

The Menu Interface for the [Fitness](#) class.

Inheritance diagram for menu.Fitness:



Collaboration diagram for menu.Fitness:



## Public Member Functions

- [Fitness](#) ()  
*Constructor that builds the Menu interface for [Fitness](#).*
- void [SelectMenu](#) (int choice, [UserData](#) z)  
*Accesses the objects of [Fitness](#), and does calculations on the fly.*

## Private Attributes

- `Menu_Entry Editor` = new `Menu_Entry`("View/Edit User Data")  
*#Menu\_Entry to access the `Editor` class.*
- `Menu_Entry Display_Caloric` = new `Menu_Entry`("Daily Caloric Requirements")  
*#Menu\_Entry to access the `Display_Caloric` class.*
- `Menu_Entry Basal_Metabolic` = new `Menu_Entry`("Basal Metabolic Rate")  
*#Menu\_Entry to access the `Basal_Metabolic` class.*
- `Menu_Entry FFMI` = new `Menu_Entry`("Fat Free Mass Index & Ranges")  
*#Menu\_Entry to access the `FFMI` class.*
- `Menu_Entry VO2_Max` = new `Menu_Entry`("VO2 Max")  
*#Menu\_Entry to access the `VO2_Max` class.*
- `Menu_Entry BMI` = new `Menu_Entry`("BMI & Range")  
*#Menu\_Entry to access the `BMI` class.*
- `Menu_Entry Lifting_Stats` = new `Menu_Entry`("Lifting Stats")  
*#Menu\_Entry to access the `Lifting_Stats` class.*

## Additional Inherited Members

### 6.34.1 Detailed Description

The Menu Interface for the `Fitness` class.

Runs calculations on the fly as needed.

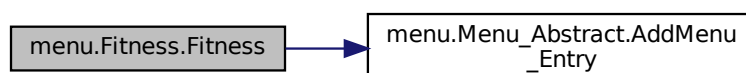
### 6.34.2 Constructor & Destructor Documentation

#### 6.34.2.1 `Fitness()`

```
menu.Fitness.Fitness ( )
```

Constructor that builds the Menu interface for `Fitness`.

Here is the call graph for this function:







#### 6.34.4.3 Display\_Caloric

```
Menu_Entry menu.Fitness.Display_Caloric = new Menu_Entry("Daily Caloric Requirements") [private]
```

#Menu\_Entry to access the [Display\\_Caloric](#) class.

#### 6.34.4.4 Editor

```
Menu_Entry menu.Fitness.Editor = new Menu_Entry("View/Edit User Data") [private]
```

#Menu\_Entry to access the [Editor](#) class.

#### 6.34.4.5 FFMI

```
Menu_Entry menu.Fitness.FFMI = new Menu_Entry("Fat Free Mass Index & Ranges") [private]
```

#Menu\_Entry to access the [FFMI](#) class.

#### 6.34.4.6 Lifting\_Stats

```
Menu_Entry menu.Fitness.Lifting_Stats = new Menu_Entry("Lifting Stats") [private]
```

#Menu\_Entry to access the [Lifting\\_Stats](#) class.

#### 6.34.4.7 VO2\_Max

```
Menu_Entry menu.Fitness.VO2_Max = new Menu_Entry("VO2 Max") [private]
```

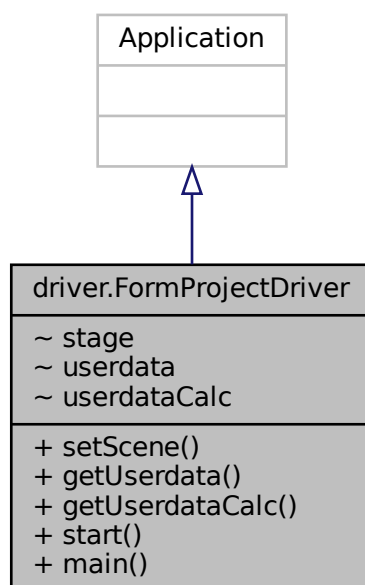
#Menu\_Entry to access the [VO2\\_Max](#) class.

The documentation for this class was generated from the following file:

- /home/jamie/java/forms\_project/src/lib/menu/[Fitness.java](#)

## 6.35 driver.FormProjectDriver Class Reference

Inheritance diagram for driver.FormProjectDriver:





## Static Public Member Functions

- static void `main` (String[] args)

## Package Attributes

- Stage `stage`

## Static Package Attributes

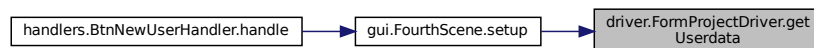
- static `UserData userdata` = new `UserData`()
- static `UserData_Calc userdataCalc` = new `UserData_Calc`(userdata)

## 6.35.1 Member Function Documentation

### 6.35.1.1 `getUserdata()`

```
UserData driver.FormProjectDriver.getUserdata ( )
```

Here is the caller graph for this function:



### 6.35.1.2 `getUserdataCalc()`

```
UserData_Calc driver.FormProjectDriver.getUserdataCalc ( )
```

### 6.35.1.3 `main()`

```
static void driver.FormProjectDriver.main (
    String[] args ) [static]
```

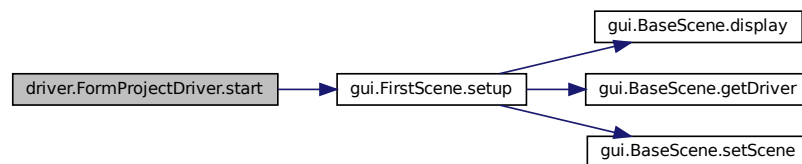
#### 6.35.1.4 setScene()

```
void driver.FormProjectDriver.setScene (
    Scene scene )
```

#### 6.35.1.5 start()

```
void driver.FormProjectDriver.start (
    Stage stage )
```

Here is the call graph for this function:



### 6.35.2 Member Data Documentation

#### 6.35.2.1 stage

```
Stage driver.FormProjectDriver.stage [package]
```

#### 6.35.2.2 userdata

```
UserData driver.FormProjectDriver.userdata = new UserData() [static], [package]
```

#### 6.35.2.3 userdataCalc

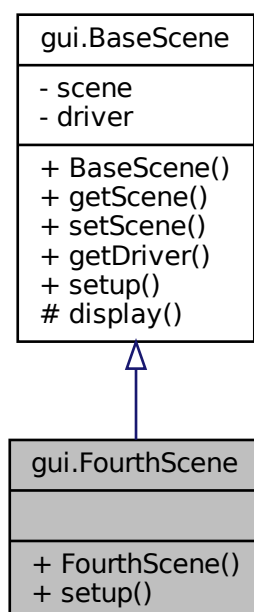
```
UserData_Calc driver.FormProjectDriver.userdataCalc = new UserData_Calc(userdata) [static],
[package]
```

The documentation for this class was generated from the following file:

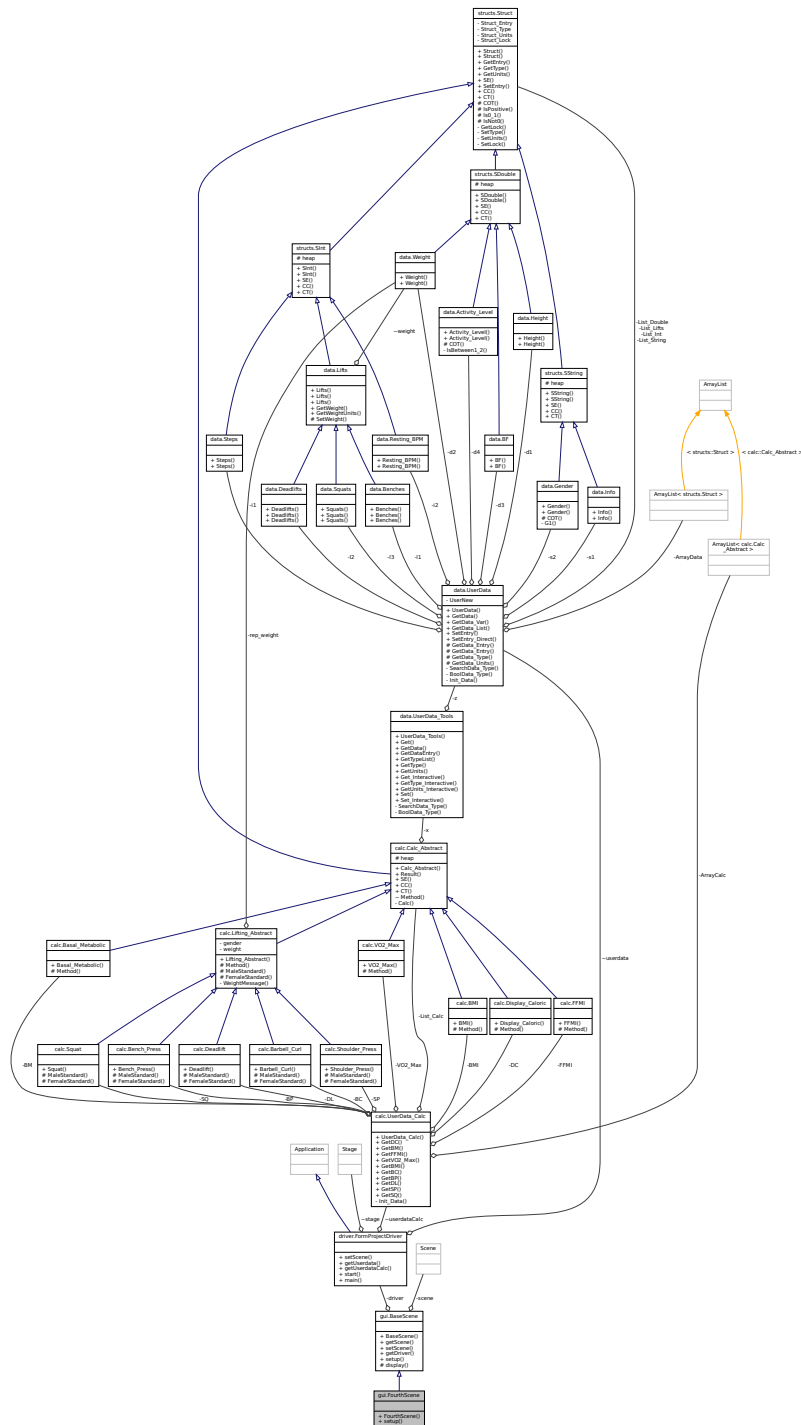
- `/home/jamie/java/forms_project/src/lib/gui/driver/FormProjectDriver.java`

## 6.36 gui.FourthScene Class Reference

Inheritance diagram for gui.FourthScene:



Collaboration diagram for gui.FourthScene:



## Public Member Functions

- FourthScene (FormProjectDriver driver)
- void setup ()

*Sets up the scene (the actual drawing)*

## Additional Inherited Members

### 6.36.1 Constructor & Destructor Documentation

#### 6.36.1.1 FourthScene()

```
gui.FourthScene.FourthScene (
    FormProjectDriver driver )
```

### 6.36.2 Member Function Documentation

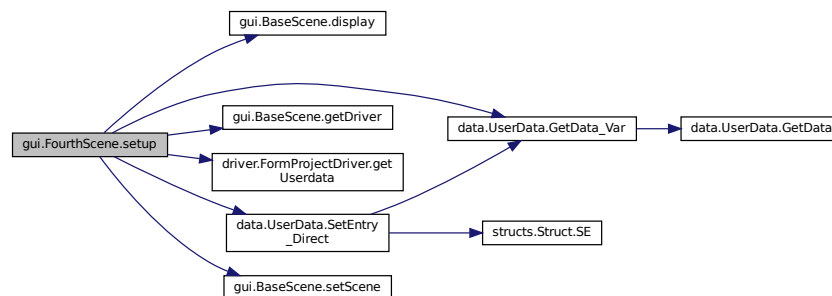
#### 6.36.2.1 setup()

```
void gui.FourthScene.setup ( )
```

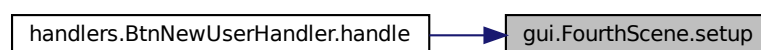
Sets up the scene (the actual drawing)

Reimplemented from [gui.BaseScene](#).

Here is the call graph for this function:



Here is the caller graph for this function:



The documentation for this class was generated from the following file:

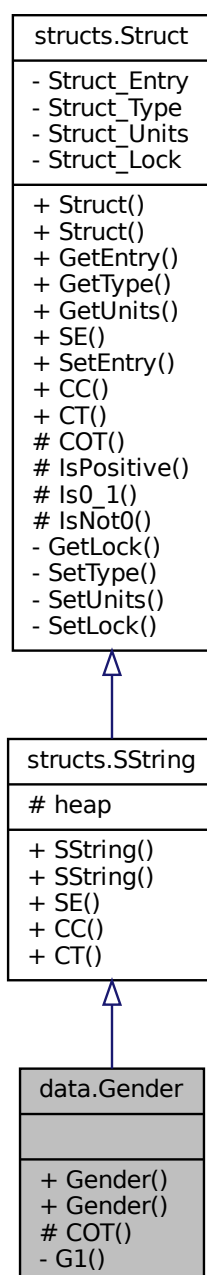
- `/home/jamie/java/forms_project/src/lib/gui/gui/FourthScene.java`



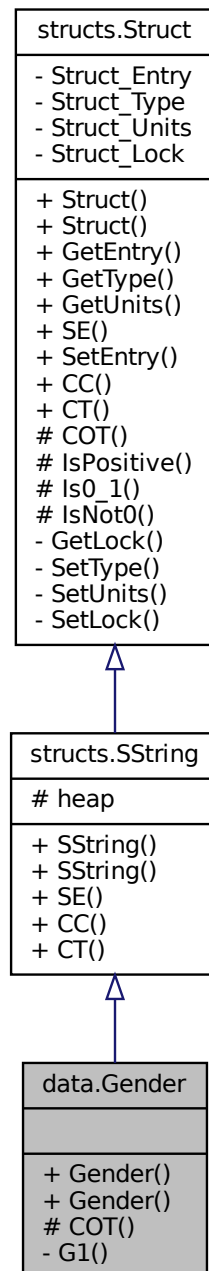
## 6.37 data.Gender Class Reference

The class that holds the user's [Gender](#).

Inheritance diagram for data.Gender:



Collaboration diagram for data.Gender:



## Public Member Functions

- [Gender](#) ()  
*Constructor with a null value.*
- [Gender](#) (String o)  
*Constructor with a defined value.*

## Protected Member Functions

- boolean `COT` (Object o)  
*Checks whether the `Gender` entry is valid.*

## Private Member Functions

- boolean `G1` (Object o)  
*Checks whether the `Gender` is male or female, or returns false if invalid.*

## Additional Inherited Members

### 6.37.1 Detailed Description

The class that holds the user's `Gender`.

### 6.37.2 Constructor & Destructor Documentation

#### 6.37.2.1 `Gender()` [1/2]

```
data.Gender.Gender ( )
```

Constructor with a null value.

#### 6.37.2.2 `Gender()` [2/2]

```
data.Gender.Gender (
    String o )
```

Constructor with a defined value.

### 6.37.3 Member Function Documentation

#### 6.37.3.1 `COT()`

```
boolean data.Gender.COT (
    Object o ) [protected]
```

Checks whether the `Gender` entry is valid.

**Parameters**

<i>o</i>	The string containing the gender.
----------	-----------------------------------

Reimplemented from [structs.Struct](#).

Here is the call graph for this function:

**6.37.3.2 G1()**

```
boolean data.Gender.G1 (  
    Object o ) [private]
```

Checks whether the [Gender](#) is male or female, or returns false if invalid.

**Parameters**

<i>o</i>	The string containing the gender.
----------	-----------------------------------

Here is the caller graph for this function:



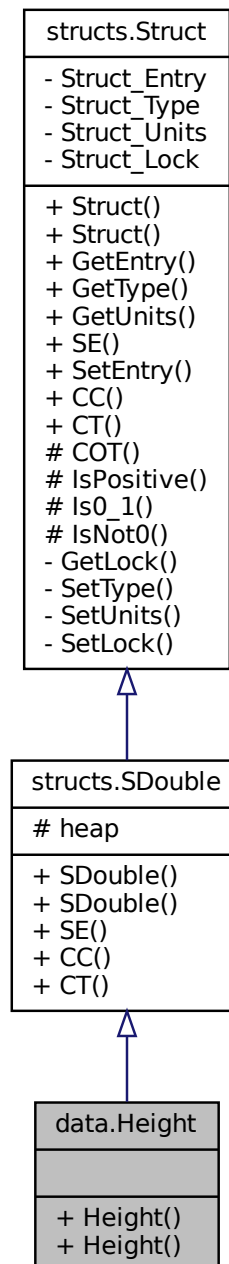
The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/data/Gender.java`

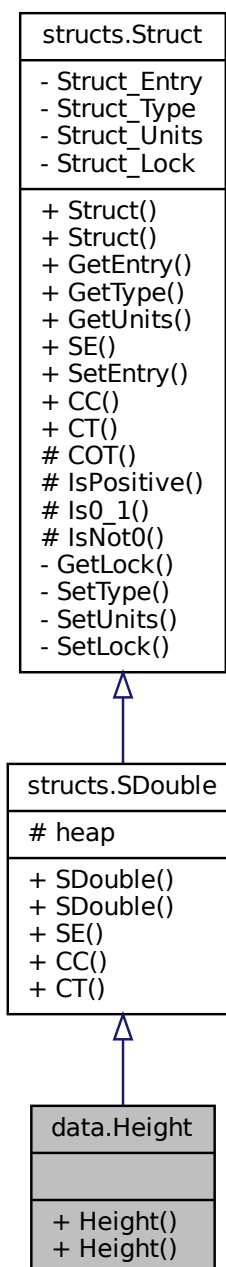
## 6.38 data.Height Class Reference

The class that holds [Height](#) data.

Inheritance diagram for data.Height:



Collaboration diagram for data.Height:



## Public Member Functions

- [Height](#) ()  
*Constructor with a null value.*
- [Height](#) (double o)  
*Constructor with a defined value.*

## Additional Inherited Members

### 6.38.1 Detailed Description

The class that holds [Height](#) data.

### 6.38.2 Constructor & Destructor Documentation

#### 6.38.2.1 Height() [1/2]

```
data.Height.Height ( )
```

Constructor with a null value.

#### 6.38.2.2 Height() [2/2]

```
data.Height.Height (
    double o )
```

Constructor with a defined value.

##### Parameters

<i>o</i>	The value of the class.
----------	-------------------------

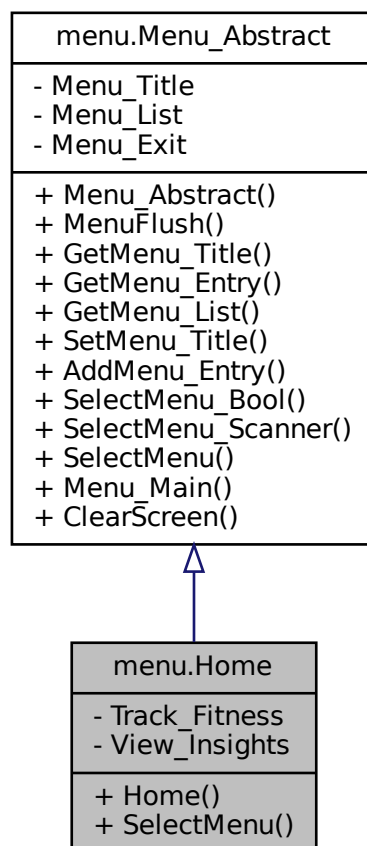
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/data/Height.java](#)

## 6.39 menu.Home Class Reference

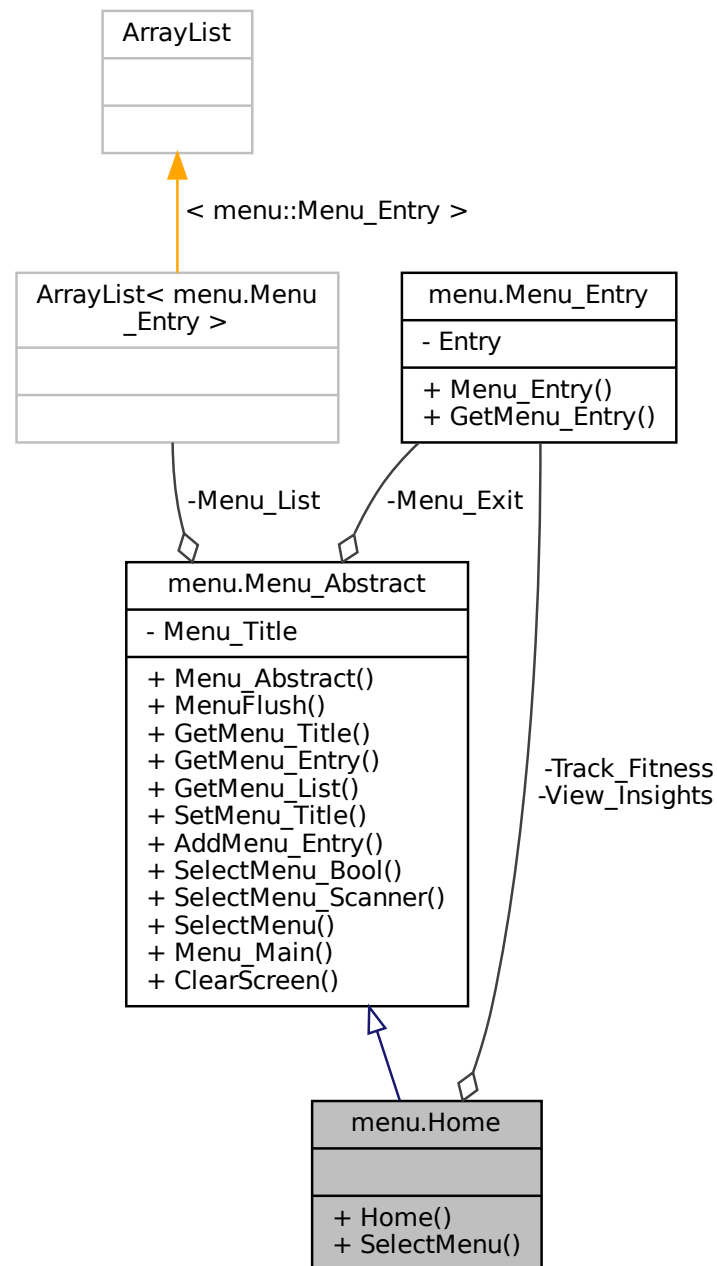
The [Home](#) Menu interface.

Inheritance diagram for menu.Home:





Collaboration diagram for menu.Home:



## Public Member Functions

- [Home](#) ()  
*Constructor that builds the [Home](#) menu interface.*
- void [SelectMenu](#) (int choice, [UserData](#) z)  
*Accesses the menu entries.*

## Private Attributes

- `Menu_Entry Track_Fitness` = new `Menu_Entry`("Track Fitness")  
#Menu\_Entry to *Track\_Fitness*.
- `Menu_Entry View_Insights` = new `Menu_Entry`("View Insights")  
#Menu\_Entry to *View\_Insights*.

## Additional Inherited Members

### 6.39.1 Detailed Description

The [Home](#) Menu interface.

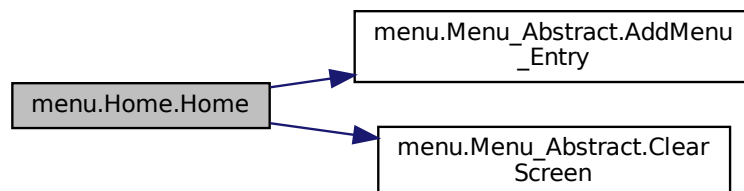
### 6.39.2 Constructor & Destructor Documentation

#### 6.39.2.1 Home()

```
menu.Home.Home ( )
```

Constructor that builds the [Home](#) menu interface.

Here is the call graph for this function:



### 6.39.3 Member Function Documentation

#### 6.39.3.1 SelectMenu()

```
void menu.Home.SelectMenu (
    int choice,
    UserData z )
```

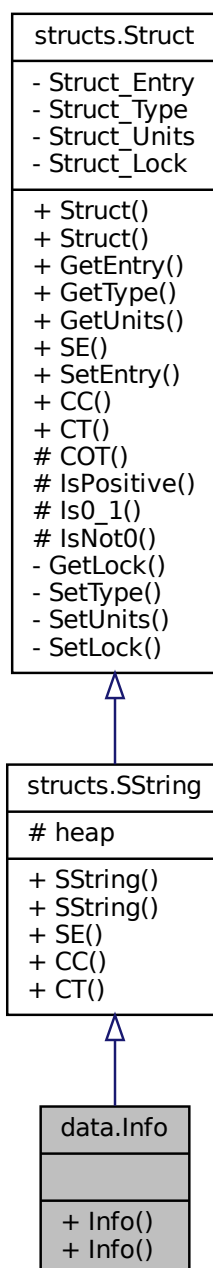
Accesses the menu entries.



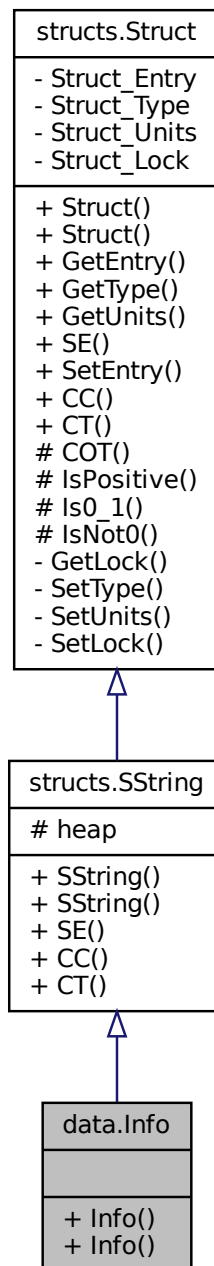
## 6.40 data.Info Class Reference

The class that holds the user's [Info](#).

Inheritance diagram for data.Info:



Collaboration diagram for data.Info:



## Public Member Functions

- [Info](#) ()  
*Constructor with a null value.*
- [Info](#) (String o)  
*Constructor with a defined value.*

## Additional Inherited Members

### 6.40.1 Detailed Description

The class that holds the user's [Info](#).

### 6.40.2 Constructor & Destructor Documentation

#### 6.40.2.1 Info() [1/2]

```
data.Info.Info ( )
```

Constructor with a null value.

#### 6.40.2.2 Info() [2/2]

```
data.Info.Info (
    String o )
```

Constructor with a defined value.

##### Parameters

<i>o</i>	The value of the class.
----------	-------------------------

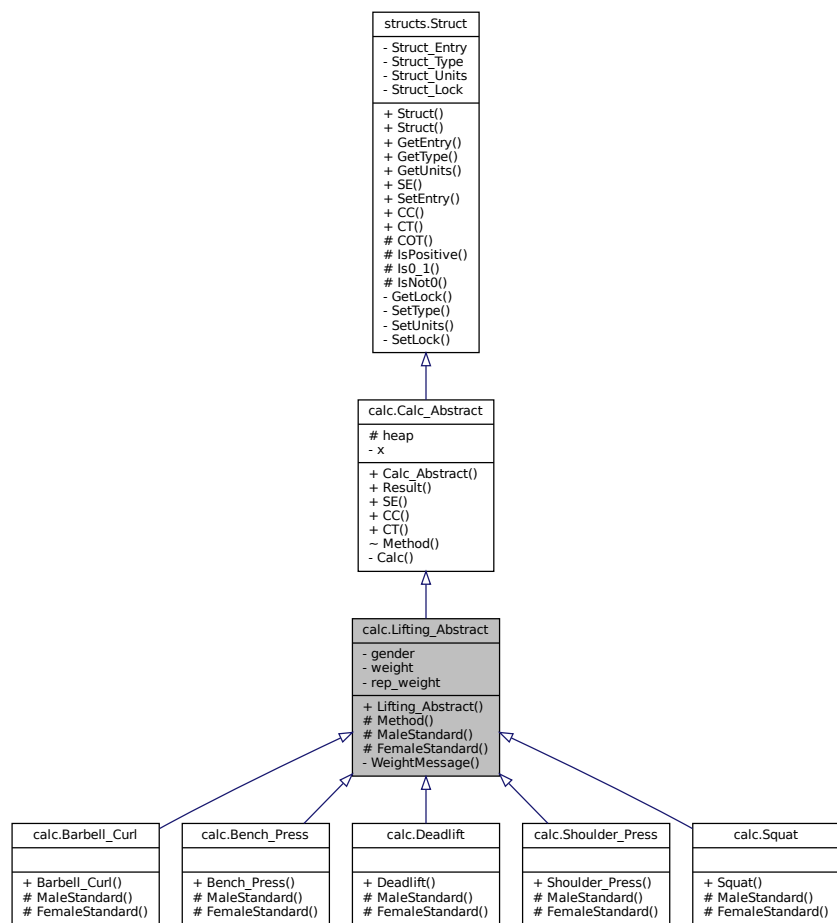
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/data/Info.java](#)

## 6.41 calc.Lifting\_Abstract Class Reference

Calculates and returns Lifting Stats values.

Inheritance diagram for calc.Lifting\_Abstract:







## Protected Member Functions

- Object [Method](#) ([UserData\\_Tools](#) use)  
*The body of the calculations.*
- abstract String [MaleStandard](#) (int [weight](#), int rweight)
- abstract String [FemaleStandard](#) (int [weight](#), int rweight)

## Private Member Functions

- String [WeightMessage](#) (String [gender](#), double pweight, double prep\_weight)

## Private Attributes

- String [gender](#)
- double [weight](#)
- [Weight](#) [rep\\_weight](#)

## Additional Inherited Members

### 6.41.1 Detailed Description

Calculates and returns Lifting Stats values.

### 6.41.2 Constructor & Destructor Documentation

#### 6.41.2.1 Lifting\_Abstract()

```
calc.Lifting_Abstract.Lifting_Abstract (
    UserData z,
    String newType )
```

Constructor for the class that uses #UserData.

#### Parameters

z	User's data.
---	--------------

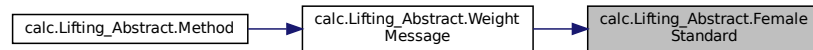
### 6.41.3 Member Function Documentation

### 6.41.3.1 FemaleStandard()

```
abstract String calc.Lifting_Abstract.FemaleStandard (
    int weight,
    int rweight ) [abstract], [protected]
```

Reimplemented in [calc.Barbell\\_Curl](#), [calc.Bench\\_Press](#), [calc.Deadlift](#), [calc.Shoulder\\_Press](#), and [calc.Squat](#).

Here is the caller graph for this function:

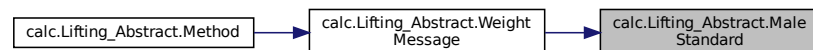


### 6.41.3.2 MaleStandard()

```
abstract String calc.Lifting_Abstract.MaleStandard (
    int weight,
    int rweight ) [abstract], [protected]
```

Reimplemented in [calc.Barbell\\_Curl](#), [calc.Bench\\_Press](#), [calc.Deadlift](#), [calc.Shoulder\\_Press](#), and [calc.Squat](#).

Here is the caller graph for this function:



### 6.41.3.3 Method()

```
Object calc.Lifting_Abstract.Method (
    UserData_Tools use ) [protected]
```

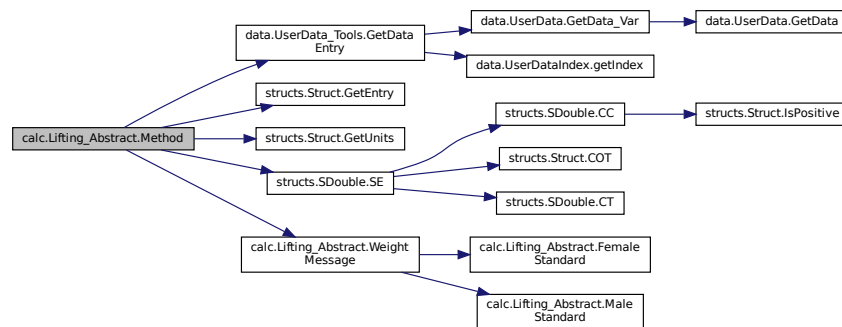
The body of the calculations.

#### Parameters

<i>use</i>	Instance of using the user's values to calculate the value of the class.
------------	--

Reimplemented from [calc.Calc\\_Abstract](#).

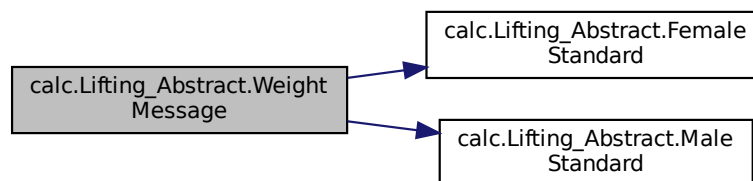
Here is the call graph for this function:



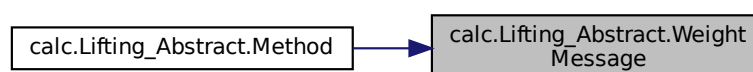
#### 6.41.3.4 WeightMessage()

```
String calc.Lifting_Abstract.WeightMessage (
    String gender,
    double pweight,
    double prep_weight ) [private]
```

Here is the call graph for this function:



Here is the caller graph for this function:



## 6.41.4 Member Data Documentation

### 6.41.4.1 gender

`String calc.Lifting_Abstract.gender [private]`

### 6.41.4.2 rep\_weight

`Weight calc.Lifting_Abstract.rep_weight [private]`

### 6.41.4.3 weight

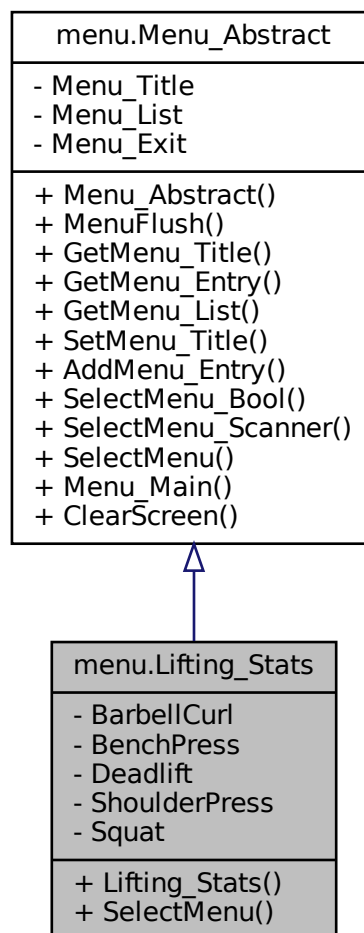
`double calc.Lifting_Abstract.weight [private]`

The documentation for this class was generated from the following file:

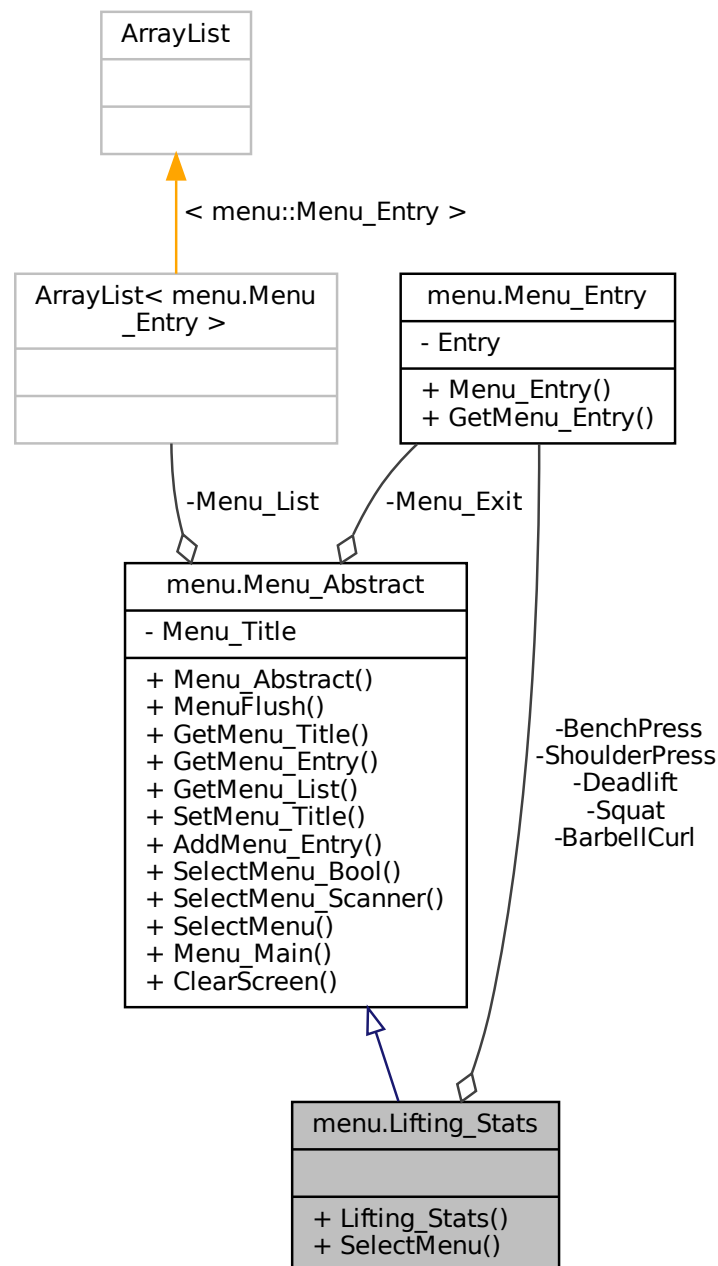
- [/home/jamie/java/forms\\_project/src/lib/calc/Lifting\\_Abstract.java](#)

## 6.42 menu.Lifting\_Stats Class Reference

Inheritance diagram for menu.Lifting\_Stats:



Collaboration diagram for menu.Lifting\_Stats:



## Public Member Functions

- [Lifting\\_Stats](#) ()
- void [SelectMenu](#) (int choice, [UserData](#) z)

*Abstract class that forces the coder to generate the current menu entries manually.*

## Private Attributes

- [Menu\\_Entry BarbellCurl](#) = new [Menu\\_Entry](#)("Barbell Curl")
- [Menu\\_Entry BenchPress](#) = new [Menu\\_Entry](#)("Bench Press")
- [Menu\\_Entry Deadlift](#) = new [Menu\\_Entry](#)("Deadlift")
- [Menu\\_Entry ShoulderPress](#) = new [Menu\\_Entry](#)("Shoulder Press")
- [Menu\\_Entry Squat](#) = new [Menu\\_Entry](#)("Squat")

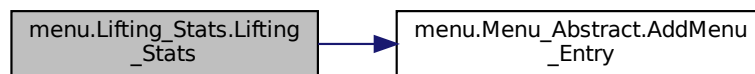
## Additional Inherited Members

### 6.42.1 Constructor & Destructor Documentation

#### 6.42.1.1 Lifting\_Stats()

```
menu.Lifting_Stats.Lifting_Stats ( )
```

Here is the call graph for this function:



### 6.42.2 Member Function Documentation

#### 6.42.2.1 SelectMenu()

```
void menu.Lifting_Stats.SelectMenu (
    int choice,
    UserData z )
```

Abstract class that forces the coder to generate the current menu entries manually.

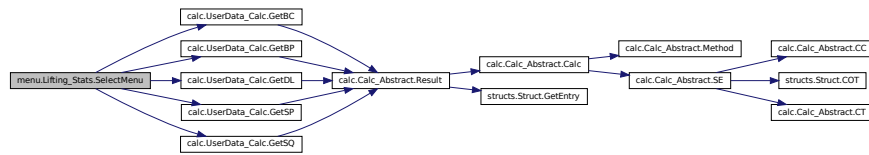
May be obseleted for the GUI due to [SelectMenu\\_Scanner](#) being bypassed.

#### Parameters

<i>choice</i>	Choice that will be sent to the <a href="#">SelectMenu</a> method.
<i>z</i>	#UserData that should be passed to other classes.

Reimplemented from [menu.Menu\\_Abstract](#).

Here is the call graph for this function:



## 6.42.3 Member Data Documentation

### 6.42.3.1 BarbellCurl

```
Menu_Entry menu.Lifting_Stats.BarbellCurl = new Menu_Entry("Barbell Curl") [private]
```

### 6.42.3.2 BenchPress

```
Menu_Entry menu.Lifting_Stats.BenchPress = new Menu_Entry("Bench Press") [private]
```

### 6.42.3.3 Deadlift

```
Menu_Entry menu.Lifting_Stats.Deadlift = new Menu_Entry("Deadlift") [private]
```

### 6.42.3.4 ShoulderPress

```
Menu_Entry menu.Lifting_Stats.ShoulderPress = new Menu_Entry("Shoulder Press") [private]
```

### 6.42.3.5 Squat

```
Menu_Entry menu.Lifting_Stats.Squat = new Menu_Entry("Squat") [private]
```

The documentation for this class was generated from the following file:

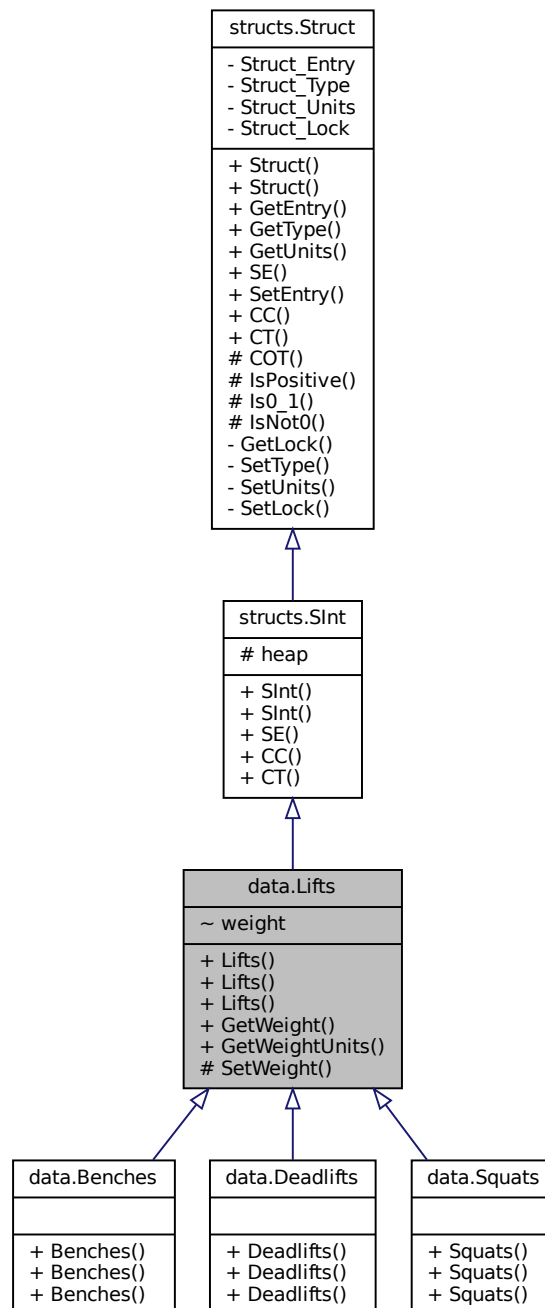
- [/home/jamie/java/forms\\_project/src/lib/menu/Lifting\\_Stats.java](#)



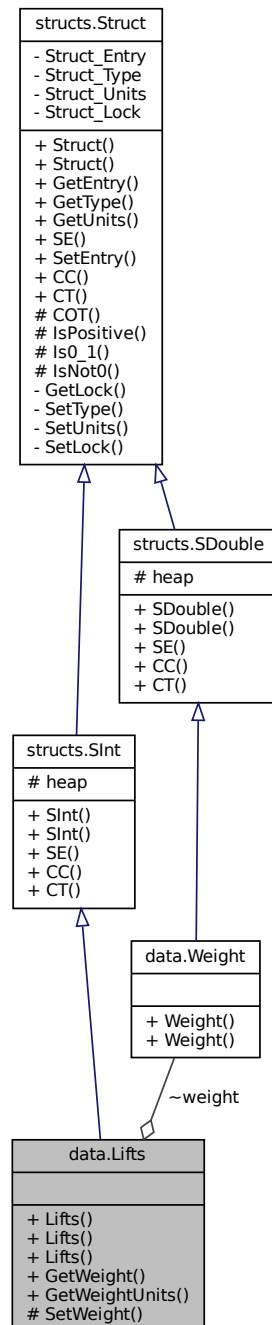
## 6.43 data.Lifts Class Reference

The abstract class that defines the lifts, using also the [Weight](#) class as an object.

Inheritance diagram for data.Lifts:



Collaboration diagram for data.Lifts:



## Public Member Functions

- [Lifts](#) (String Type)  
*Constructor to define the type of exercise.*
- [Lifts](#) (int o, String Type)  
*Constructor to define the amount of reps for the exercise.*
- [Lifts](#) (int o, double p, String Type)

*Constructor to define the amount of reps on a certain weight per exercise.*

- double [GetWeight](#) ()  
*Gets the double value of the weight used for the exercise.*
- String [GetWeightUnits](#) ()  
*Gets the weight units for the exercise.*

## Protected Member Functions

- void [SetWeight](#) (double o)  
*Sets the weight for the exercise.*

## Package Attributes

- [Weight weight](#)  
*Define the weight of the reps taken.*

## Additional Inherited Members

### 6.43.1 Detailed Description

The abstract class that defines the lifts, using also the [Weight](#) class as an object.

### 6.43.2 Constructor & Destructor Documentation

#### 6.43.2.1 Lifts() [1/3]

```
data.Lifts.Lifts (
    String Type )
```

Constructor to define the type of exercise.

#### Parameters

<i>Type</i>	The type of lifting exercise.
-------------	-------------------------------

#### 6.43.2.2 Lifts() [2/3]

```
data.Lifts.Lifts (
    int o,
    String Type )
```

Constructor to define the amount of reps for the exercise.

## Parameters

<i>o</i>	The amount of reps for the exercise.
<i>Type</i>	The type of lifting exercise.

**6.43.2.3 Lifts()** [3/3]

```
data.Lifts.Lifts (
    int o,
    double p,
    String Type )
```

Constructor to define the amount of reps on a certain weight per exercise.

## Parameters

<i>o</i>	The amount of reps for the exercise.
<i>p</i>	The weight used for the exercise.
<i>Type</i>	The type of lifting exercise.

**6.43.3 Member Function Documentation****6.43.3.1 GetWeight()**

```
double data.Lifts.GetWeight ( )
```

Gets the double value of the weight used for the exercise.

## Returns

#weight.GetEntry()

Here is the call graph for this function:



### 6.43.3.2 GetWeightUnits()

```
String data.Lifts.GetWeightUnits ( )
```

Gets the weight units for the exercise.

#### Returns

#weight.GetUnits()

Here is the call graph for this function:



### 6.43.3.3 SetWeight()

```
void data.Lifts.SetWeight (
    double o ) [protected]
```

Sets the weight for the exercise.

#### Parameters

<i>o</i>	The weight of the exercise.
----------	-----------------------------

Here is the call graph for this function:



## 6.43.4 Member Data Documentation

#### 6.43.4.1 weight

`Weight data.Lifts.weight [package]`

Define the weight of the reps taken.

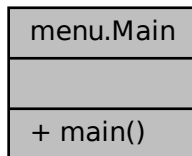
The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/data/Lifts.java`

### 6.44 menu.Main Class Reference

The main class that runs the TUI.

Collaboration diagram for menu.Main:



#### Static Public Member Functions

- static void `main` (String[] args)  
*`Main` object that is run at runtime.*

#### 6.44.1 Detailed Description

The main class that runs the TUI.

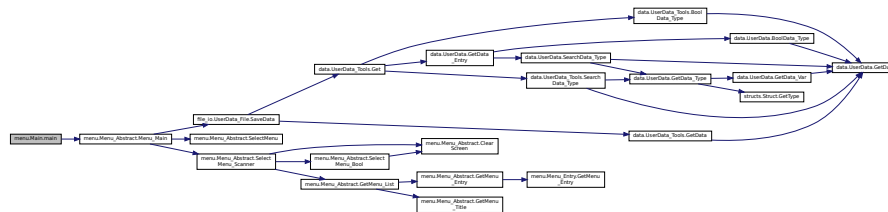
#### 6.44.2 Member Function Documentation

### 6.44.2.1 main()

```
static void menu.Main.main (
    String[] args ) [static]
```

**Main** object that is run at runtime.

Maybe might take in user data if needed. Here is the call graph for this function:



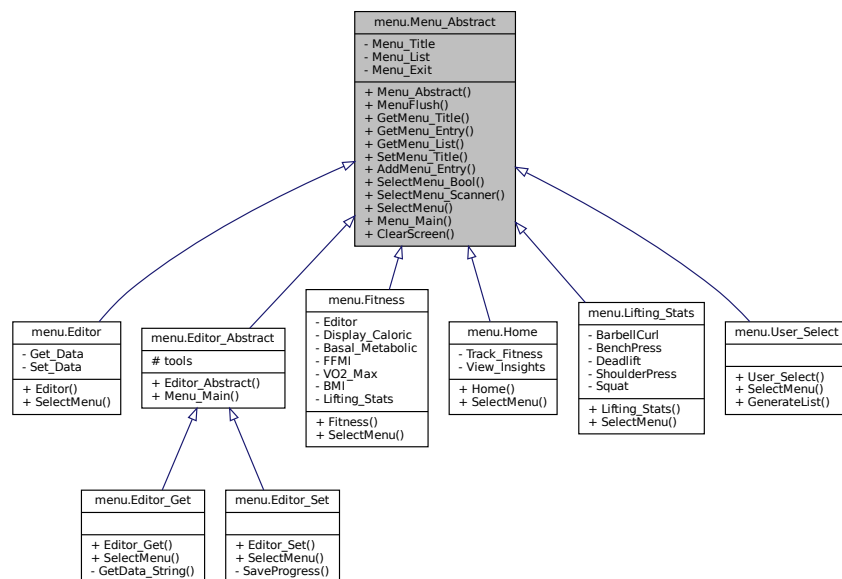
The documentation for this class was generated from the following file:

- /home/jamie/java/forms\_project/src/lib/menu/Main.java

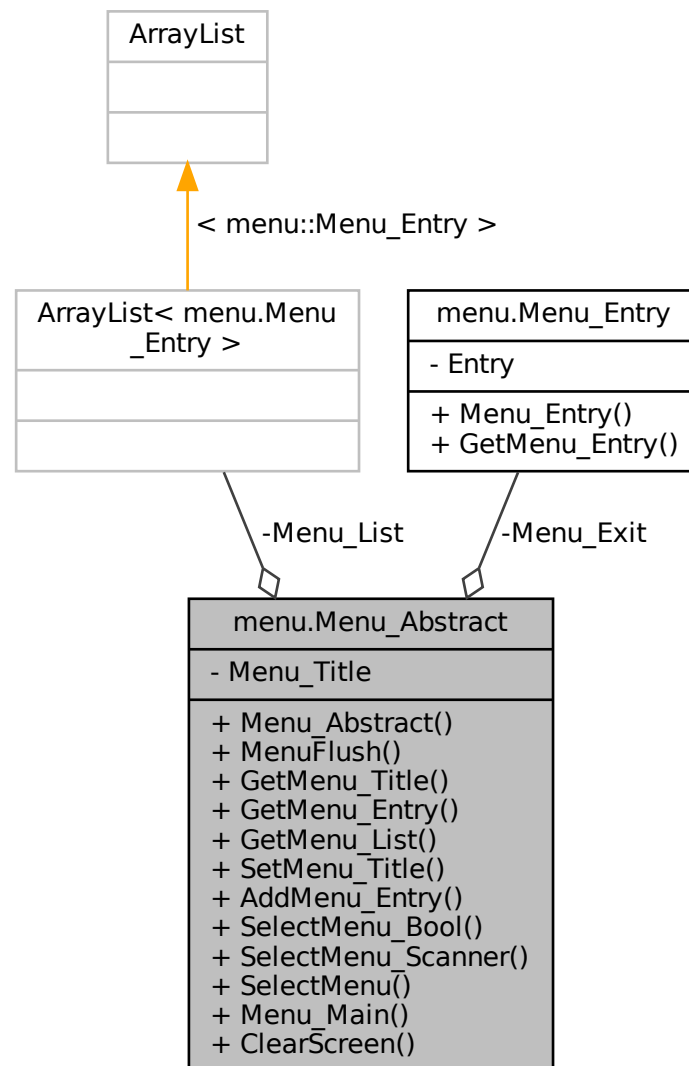
## 6.45 menu.Menu\_Abstract Class Reference

The template class that provides the skeleton menu interface.

Inheritance diagram for menu.Menu\_Abstract:



Collaboration diagram for menu.Menu\_Abstract:



## Public Member Functions

- [Menu\\_Abstract](#) (String [Menu\\_Title](#))  
*Constructor that builds the menu itself.*
- void [MenuFlush](#) ()
- String [GetMenu\\_Title](#) ()  
*Returns the Menu's title.*
- String [GetMenu\\_Entry](#) ([Menu\\_Entry](#) Entry)  
*Method to retrieve the current menu's #Menu\_Entry to be displayed.*
- String [GetMenu\\_List](#) ()  
*Retrieves a list of entries of #Menu\_Entry for the current menu, and returns it to the user.*
- void [SetMenu\\_Title](#) (String [Menu\\_Title](#))



- Sets the current Menu's title.*
- void [AddMenu\\_Entry](#) ([Menu\\_Entry](#) NewEntry)  
*Adds #Menu\_Entry to the [Menu\\_List](#) array.*
- boolean [SelectMenu\\_Bool](#) (int choice)  
*Checks if the selected menu entry is considered valid.*
- int [SelectMenu\\_Scanner](#) ()  
*Main method that takes the user input from the TUI.*
- abstract void [SelectMenu](#) (int choice, [UserData](#) z)  
*Abstract class that forces the coder to generate the current menu entries manually.*
- void [Menu\\_Main](#) ([UserData](#) z)  
*The main loop that bring the TUI interface for the user.*

## Static Public Member Functions

- static void [ClearScreen](#) ()  
*Clears the current screen, refresh in a sense, without building too much buffer on the screen.*

## Private Attributes

- String [Menu\\_Title](#)  
*The title of the current menu.*
- ArrayList< [Menu\\_Entry](#) > [Menu\\_List](#) = new ArrayList<[Menu\\_Entry](#)>()  
*ArrayList of #Menu\_Entry to be displayed on the interface.*
- [Menu\\_Entry](#) [Menu\\_Exit](#) = new [Menu\\_Entry](#)("Exit")  
*#Menu\_Entry to display an exit option.*

### 6.45.1 Detailed Description

The template class that provides the skeleton menu interface.

### 6.45.2 Constructor & Destructor Documentation

#### 6.45.2.1 Menu\_Abstract()

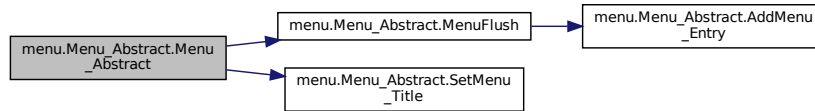
```
menu.Menu_Abstract.Menu_Abstract (
    String Menu_Title )
```

Constructor that builds the menu itself.

#### Parameters

<i>Menu_Title</i>	Name of the Menu.
-------------------	-------------------

Here is the call graph for this function:



## 6.45.3 Member Function Documentation

### 6.45.3.1 AddMenu\_Entry()

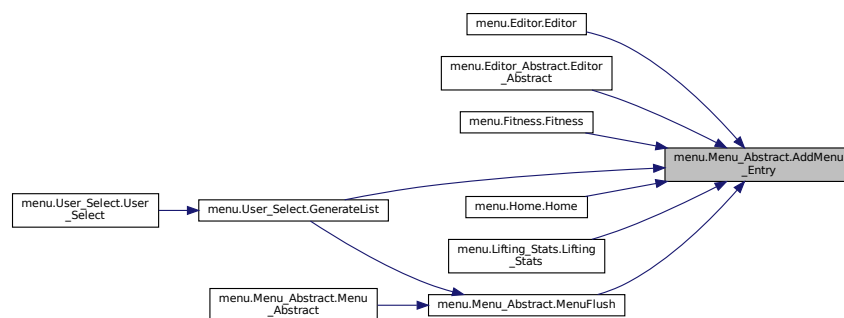
```
void menu.Menu_Abstract.AddMenu_Entry (
    Menu_Entry NewEntry )
```

Adds #Menu\_Entry to the [Menu\\_List](#) array.

#### Parameters

<i>NewEntry</i>	New menu entry to add to the current menu.
-----------------	--

Here is the caller graph for this function:

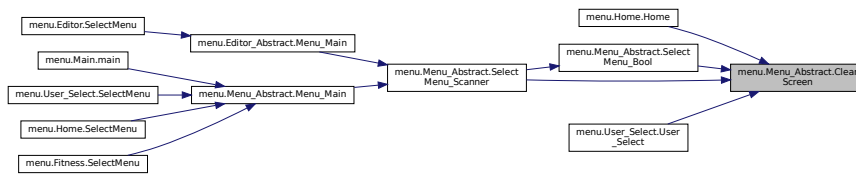


### 6.45.3.2 ClearScreen()

```
static void menu.Menu_Abstract.ClearScreen ( ) [static]
```

Clears the current screen, refresh in a sense, without building too much buffer on the screen.

Here is the caller graph for this function:



### 6.45.3.3 GetMenu\_Entry()

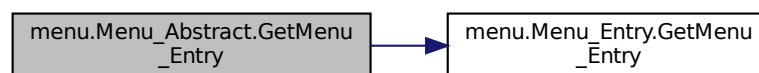
```
String menu.Menu_Abstract.GetMenu_Entry (
    Menu_Entry Entry )
```

Method to retrieve the current menu's #Menu\_Entry to be displayed.

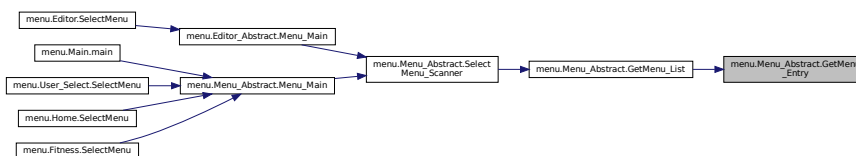
#### Returns

#Menu\_Entry.GetMenu\_Entry() for the user.

Here is the call graph for this function:



Here is the caller graph for this function:



### 6.45.3.4 GetMenu\_List()

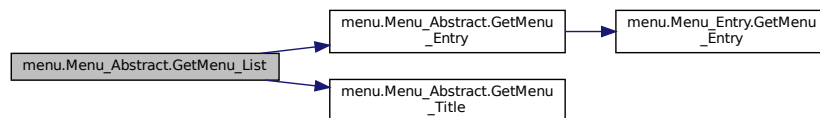
```
String menu.Menu_Abstract.GetMenu_List ( )
```

Retrieves a list of entries of #Menu\_Entry for the current menu, and returns it to the user.

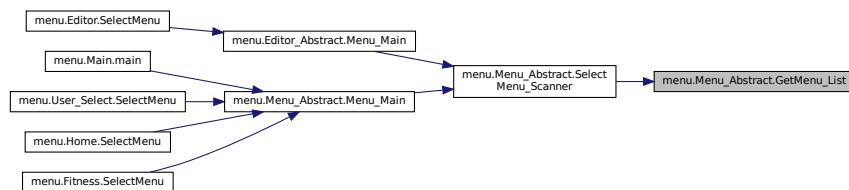
#### Returns

#ArrayStringed, or the current menu in String form.

Here is the call graph for this function:



Here is the caller graph for this function:



### 6.45.3.5 GetMenu\_Title()

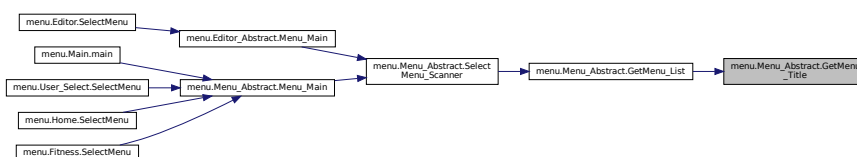
```
String menu.Menu_Abstract.GetMenu_Title ( )
```

Returns the Menu's title.

#### Returns

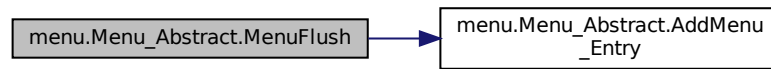
[Menu\\_Title](#).

Here is the caller graph for this function:

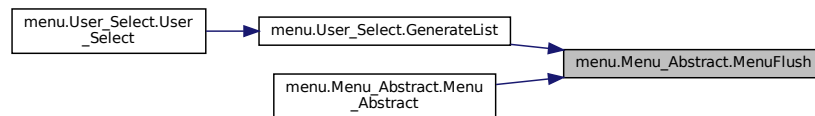




Here is the call graph for this function:



Here is the caller graph for this function:



### 6.45.3.8 SelectMenu()

```

abstract void menu.Menu_Abstract.SelectMenu (
    int choice,
    UserData z ) [abstract]
  
```

Abstract class that forces the coder to generate the current menu entries manually.

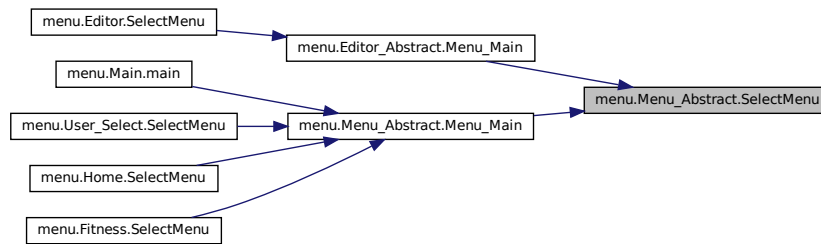
May be obseleted for the GUI due to [SelectMenu\\_Scanner](#) being bypassed.

#### Parameters

<i>choice</i>	Choice that will be sent to the <a href="#">SelectMenu</a> method.
<i>z</i>	#UserData that should be passed to other classes.

Reimplemented in [menu.Fitness](#), [menu.Home](#), [menu.Editor](#), [menu.Editor\\_Set](#), [menu.Editor\\_Get](#), [menu.Lifting\\_Stats](#), and [menu.User\\_Select](#).

Here is the caller graph for this function:



### 6.45.3.9 SelectMenu\_Bool()

```
boolean menu.Menu_Abstract.SelectMenu_Bool (
    int choice )
```

Checks if the selected menu entry is considered valid.

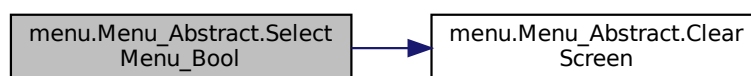
#### Parameters

<i>choice</i>	Choice chosen from the user input to check if the value is within the menu's size.
---------------	--

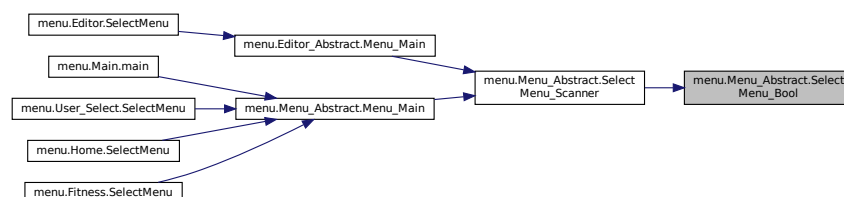
#### Returns

True if choice is valid. False if otherwise.

Here is the call graph for this function:



Here is the caller graph for this function:



### 6.45.3.10 SelectMenu\_Scanner()

```
int menu.Menu_Abstract.SelectMenu_Scanner ( )
```

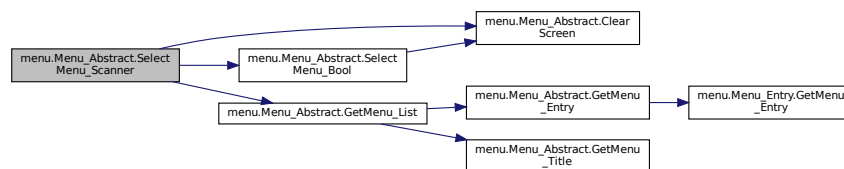
Main method that takes the user input from the TUI.

May become obsolete if GUI is chosen.

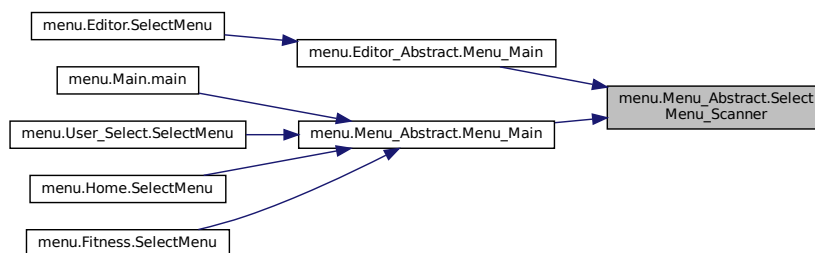
#### Returns

Integer that accesses the other objects on the menu.

Here is the call graph for this function:



Here is the caller graph for this function:



### 6.45.3.11 SetMenu\_Title()

```
void menu.Menu_Abstract.SetMenu_Title (
    String Menu_Title )
```

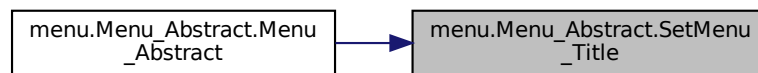
Sets the current Menu's title.



## Parameters

<i>Menu_Title</i>	Sets the current menu's title.
-------------------	--------------------------------

Here is the caller graph for this function:



## 6.45.4 Member Data Documentation

### 6.45.4.1 Menu\_Exit

```
Menu_Entry menu.Menu_Abstract.Menu_Exit = new Menu_Entry("Exit") [private]
```

#Menu\_Entry to display an exit option.

### 6.45.4.2 Menu\_List

```
ArrayList<Menu_Entry> menu.Menu_Abstract.Menu_List = new ArrayList<Menu_Entry>() [private]
```

ArrayList of #Menu\_Entry to be displayed on the interface.

### 6.45.4.3 Menu\_Title

```
String menu.Menu_Abstract.Menu_Title [private]
```

The title of the current menu.

The documentation for this class was generated from the following file:

- /home/jamie/java/forms\_project/src/lib/menu/[Menu\\_Abstract.java](#)

## 6.46 menu.Menu\_Entry Class Reference

Class that provides the entry data structure.

Collaboration diagram for menu.Menu\_Entry:

menu.Menu_Entry
- Entry
+ Menu_Entry() + GetMenu_Entry()

### Public Member Functions

- [Menu\\_Entry](#) (String [Entry](#))  
*Constructor that builds the current entry.*
- String [GetMenu\\_Entry](#) ()  
*Gets the value of the [Entry](#).*

### Private Attributes

- String [Entry](#)  
*The name of the current entry.*

### 6.46.1 Detailed Description

Class that provides the entry data structure.

### 6.46.2 Constructor & Destructor Documentation

#### 6.46.2.1 Menu\_Entry()

```
menu.Menu_Entry.Menu_Entry (  
    String Entry )
```

Constructor that builds the current entry.

### 6.46.3 Member Function Documentation

#### 6.46.3.1 GetMenu\_Entry()

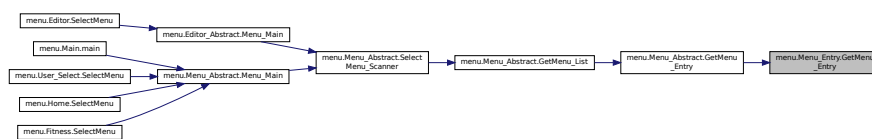
```
String menu.Menu_Entry.GetMenu_Entry ( )
```

Gets the value of the [Entry](#).

Returns

#Menu\_Entry.Entry

Here is the caller graph for this function:



### 6.46.4 Member Data Documentation

#### 6.46.4.1 Entry

```
String menu.Menu_Entry.Entry [private]
```

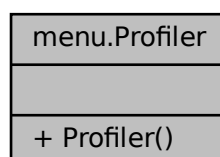
The name of the current entry.

The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/menu/Menu\\_Entry.java](#)

## 6.47 menu.Profiler Class Reference

Collaboration diagram for menu.Profiler:



## Static Public Member Functions

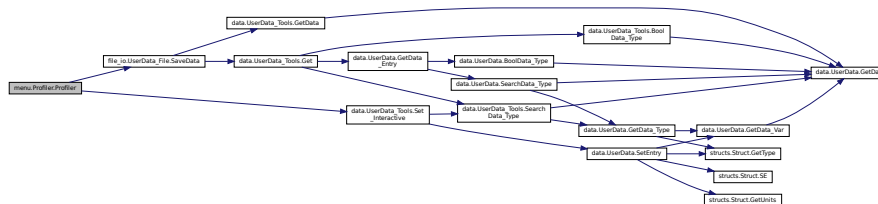
- static void [Profiler](#) ([UserData](#) NewUser)

### 6.47.1 Constructor & Destructor Documentation

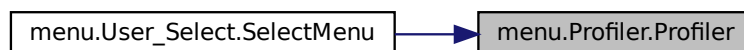
#### 6.47.1.1 Profiler()

```
static void menu.Profiler.Profiler (
    UserData NewUser ) [static]
```

Here is the call graph for this function:



Here is the caller graph for this function:

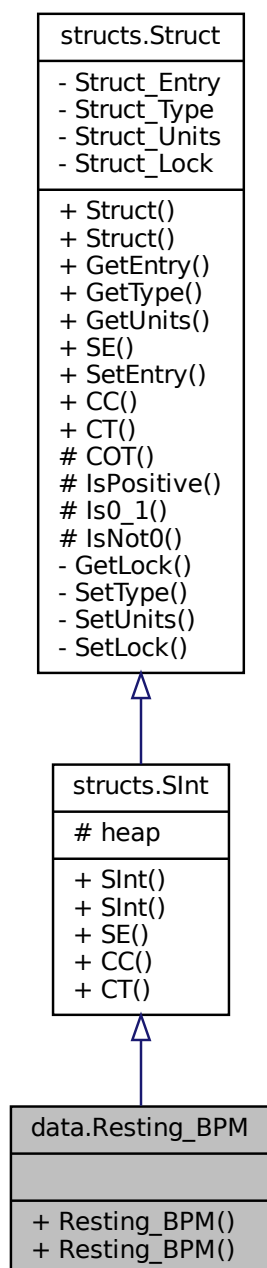


The documentation for this class was generated from the following file:

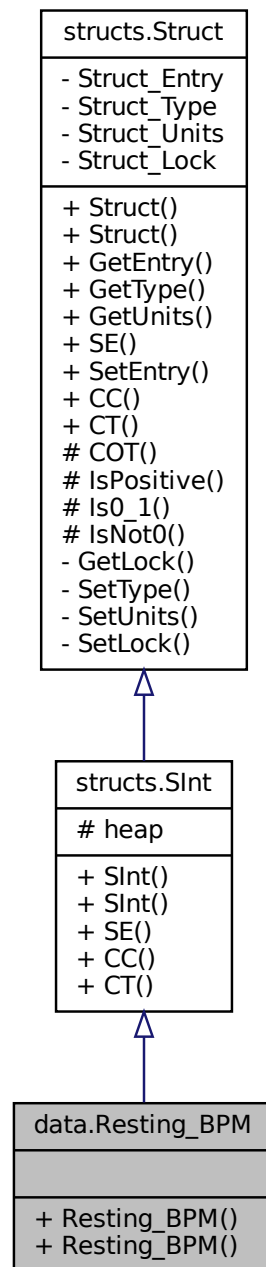
- [/home/jamie/java/forms\\_project/src/lib/menu/Profiler.java](#)

## 6.48 data.Resting\_BPM Class Reference

Inheritance diagram for data.Resting\_BPM:



Collaboration diagram for data.Resting\_BPM:



## Public Member Functions

- [Resting\\_BPM](#) ()
- [Resting\\_BPM](#) (int o)

## Additional Inherited Members

### 6.48.1 Constructor & Destructor Documentation

#### 6.48.1.1 Resting\_BPM() [1/2]

```
data.Resting_BPM.Resting_BPM ( )
```

#### 6.48.1.2 Resting\_BPM() [2/2]

```
data.Resting_BPM.Resting_BPM (
    int o )
```

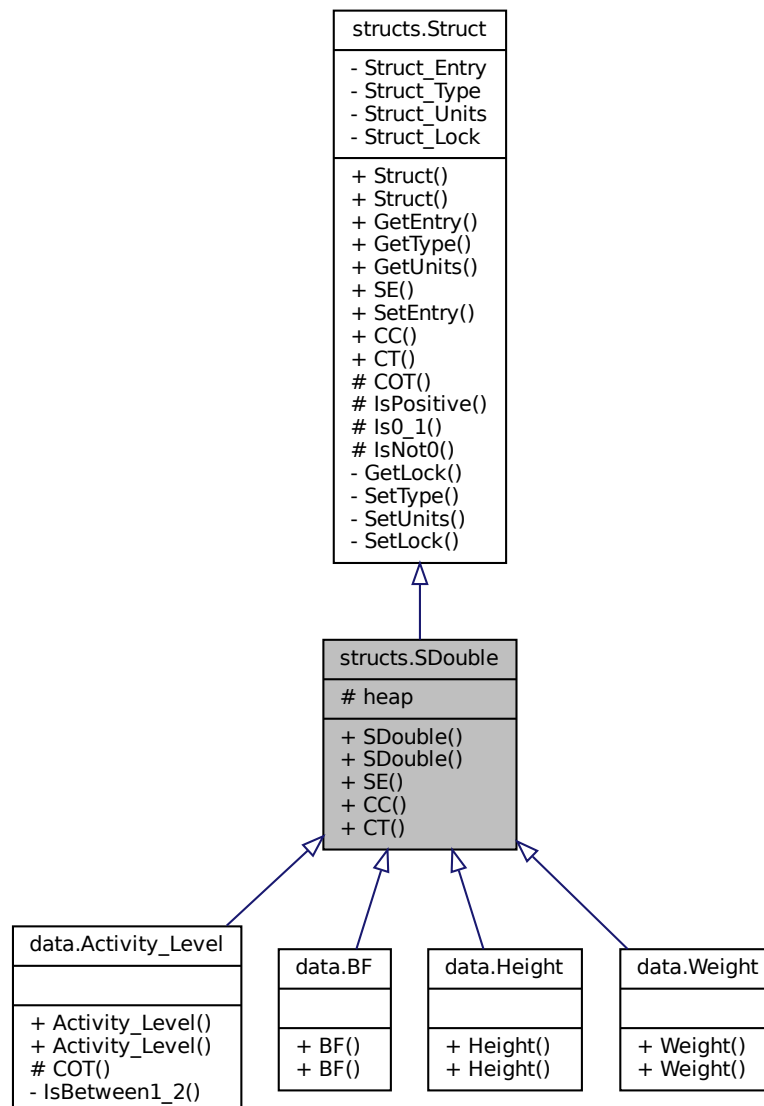
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/data/Resting\\_BPM.java](#)

## 6.49 structs.SDouble Class Reference

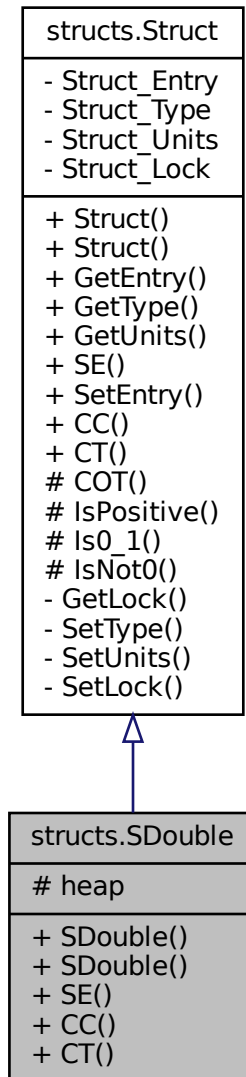
The class that holds Double-typed data.

Inheritance diagram for structs.SDouble:





Collaboration diagram for structs.SDouble:



## Public Member Functions

- `SDouble` (String Type, String Units)  
*Initializes `SDouble` with default value null.*
- `SDouble` (double o, String Type, String Units)  
*Initializes `SDouble` with a defined value.*
- boolean `SE` (Object o)
- boolean `CC` (Object o)  
*Returns whether the object is positive or not.*
- boolean `CT` (Object o)  
*Returns whether an object is a double or not.*

## Protected Attributes

- double [heap](#)

*Temporary storage for containing Double values.*

## Additional Inherited Members

### 6.49.1 Detailed Description

The class that holds Double-typed data.

### 6.49.2 Constructor & Destructor Documentation

#### 6.49.2.1 SDouble() [1/2]

```
structs.SDouble.SDouble (  
    String Type,  
    String Units )
```

Initializes [SDouble](#) with default value null.

##### Parameters

<i>Type</i>	The type of double.
<i>Units</i>	The units of the type.

#### 6.49.2.2 SDouble() [2/2]

```
structs.SDouble.SDouble (  
    double o,  
    String Type,  
    String Units )
```

Initializes [SDouble](#) with a defined value.

##### Parameters

<i>o</i>	The defined value for the class.
<i>Type</i>	The type of double.
<i>Units</i>	The units of the type.

### 6.49.3 Member Function Documentation

#### 6.49.3.1 CC()

```
boolean structs.SDouble.CC (  
    Object o )
```

Returns whether the object is positive or not.

See also

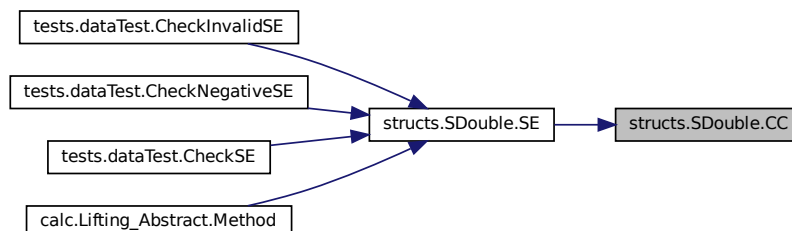
#Struct.CC

Reimplemented from [structs.Struct](#).

Here is the call graph for this function:



Here is the caller graph for this function:



### 6.49.3.2 CT()

```
boolean structs.SDouble.CT (
    Object o )
```

Returns whether an object is a double or not.

#### Note

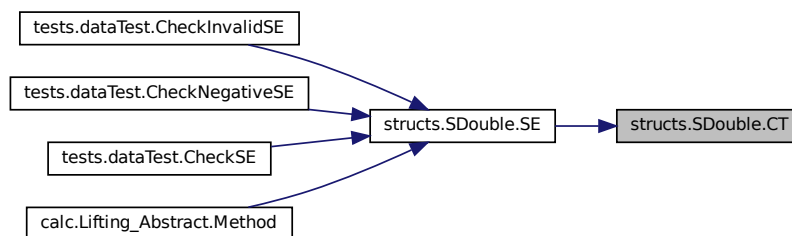
May losslessly take any int values.

#### See also

#Struct.CT

Reimplemented from [structs.Struct](#).

Here is the caller graph for this function:



### 6.49.3.3 SE()

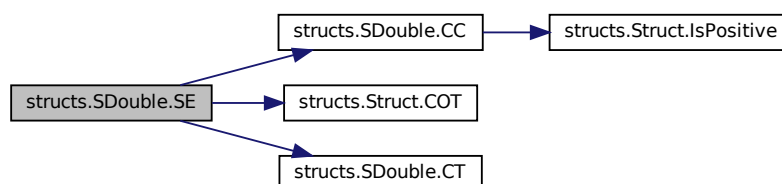
```
boolean structs.SDouble.SE (
    Object o )
```

#### See also

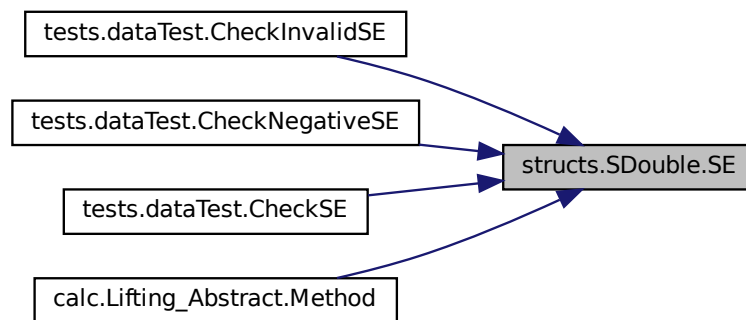
#Struct.SE

Reimplemented from [structs.Struct](#).

Here is the call graph for this function:



Here is the caller graph for this function:



## 6.49.4 Member Data Documentation

### 6.49.4.1 heap

```
double structs.SDouble.heap [protected]
```

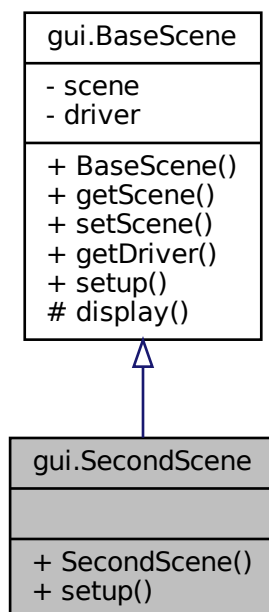
Temporary storage for containing Double values.

The documentation for this class was generated from the following file:

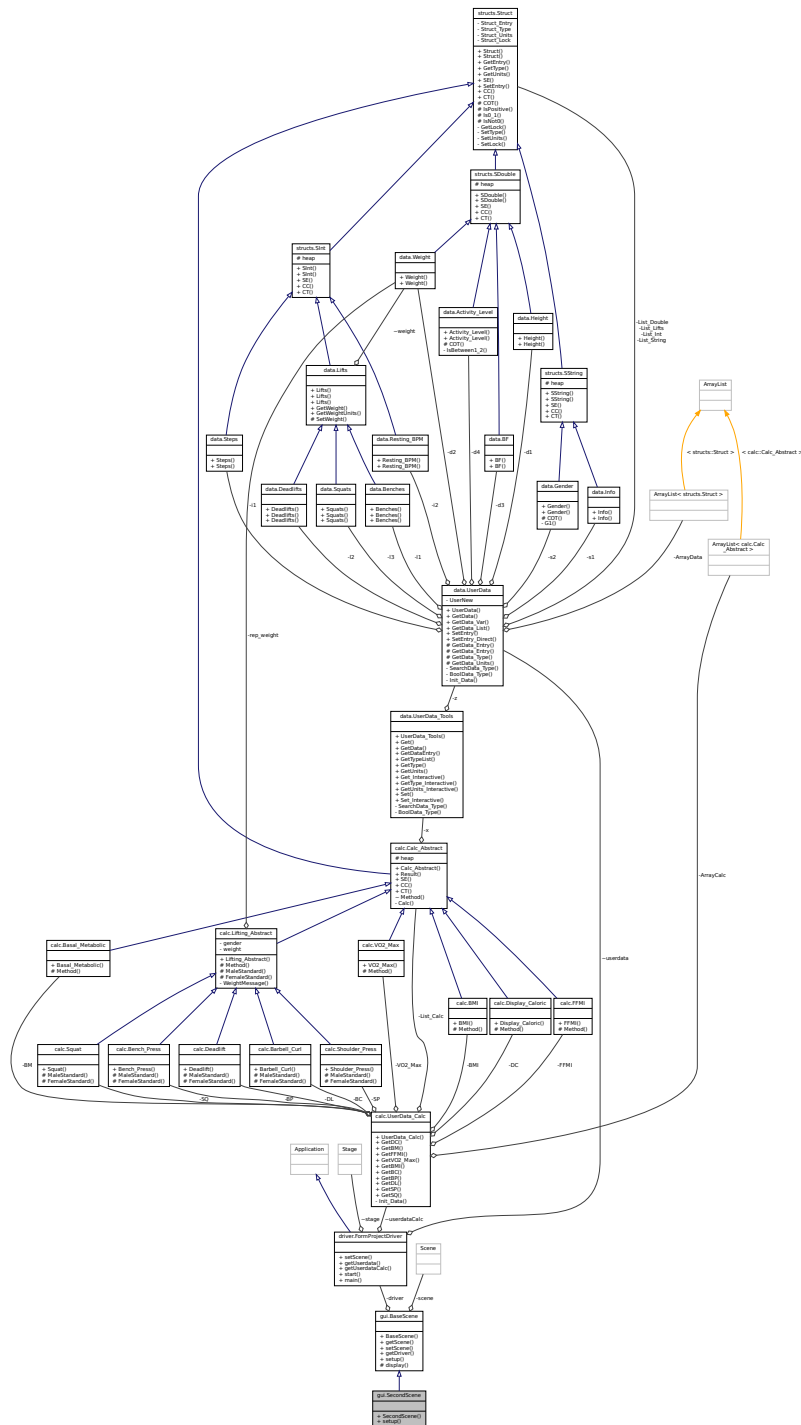
- `/home/jamie/java/forms_project/src/lib/structs/SDouble.java`

## 6.50 gui.SecondScene Class Reference

Inheritance diagram for gui.SecondScene:



Collaboration diagram for gui.SecondScene:



## Public Member Functions

- SecondScene (FormProjectDriver driver)
- void setup ()

*Sets up the scene (the actual drawing)*

## Additional Inherited Members

### 6.50.1 Constructor & Destructor Documentation

#### 6.50.1.1 SecondScene()

```
gui.SecondScene.SecondScene (
    FormProjectDriver driver )
```

### 6.50.2 Member Function Documentation

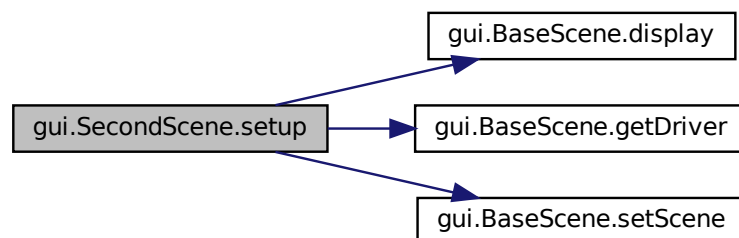
#### 6.50.2.1 setup()

```
void gui.SecondScene.setup ( )
```

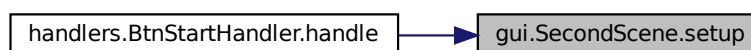
Sets up the scene (the actual drawing)

Reimplemented from [gui.BaseScene](#).

Here is the call graph for this function:



Here is the caller graph for this function:



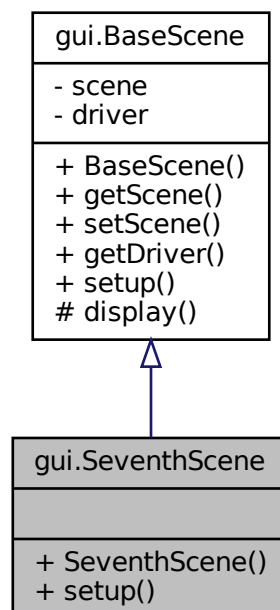
The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/gui/gui/SecondScene.java`



## 6.51 gui.SeventhScene Class Reference

Inheritance diagram for gui.SeventhScene:





## Additional Inherited Members

### 6.51.1 Constructor & Destructor Documentation

#### 6.51.1.1 SeventhScene()

```
gui.SeventhScene.SeventhScene (
    FormProjectDriver driver )
```

### 6.51.2 Member Function Documentation

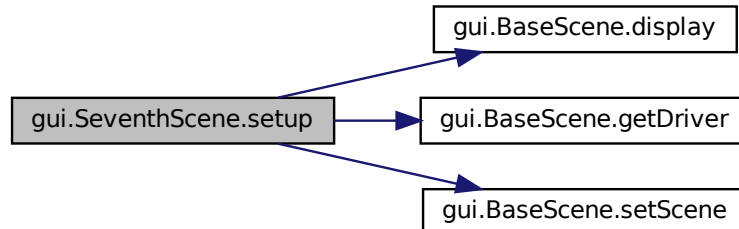
#### 6.51.2.1 setup()

```
void gui.SeventhScene.setup ( )
```

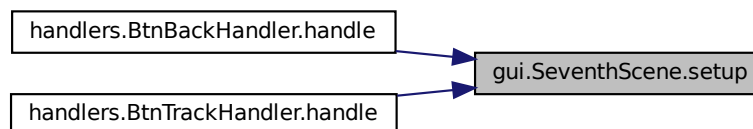
Sets up the scene (the actual drawing)

Reimplemented from [gui.BaseScene](#).

Here is the call graph for this function:



Here is the caller graph for this function:

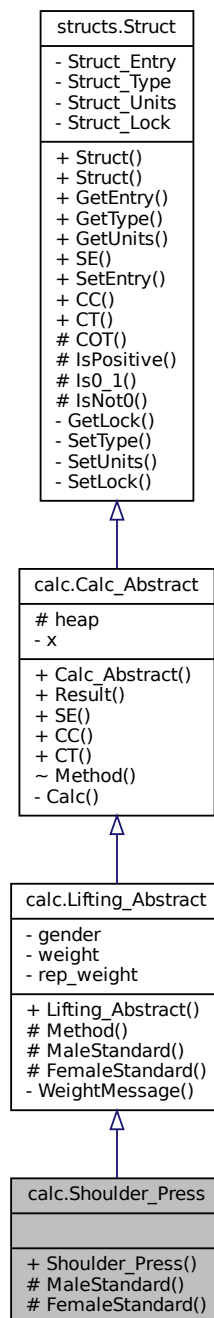


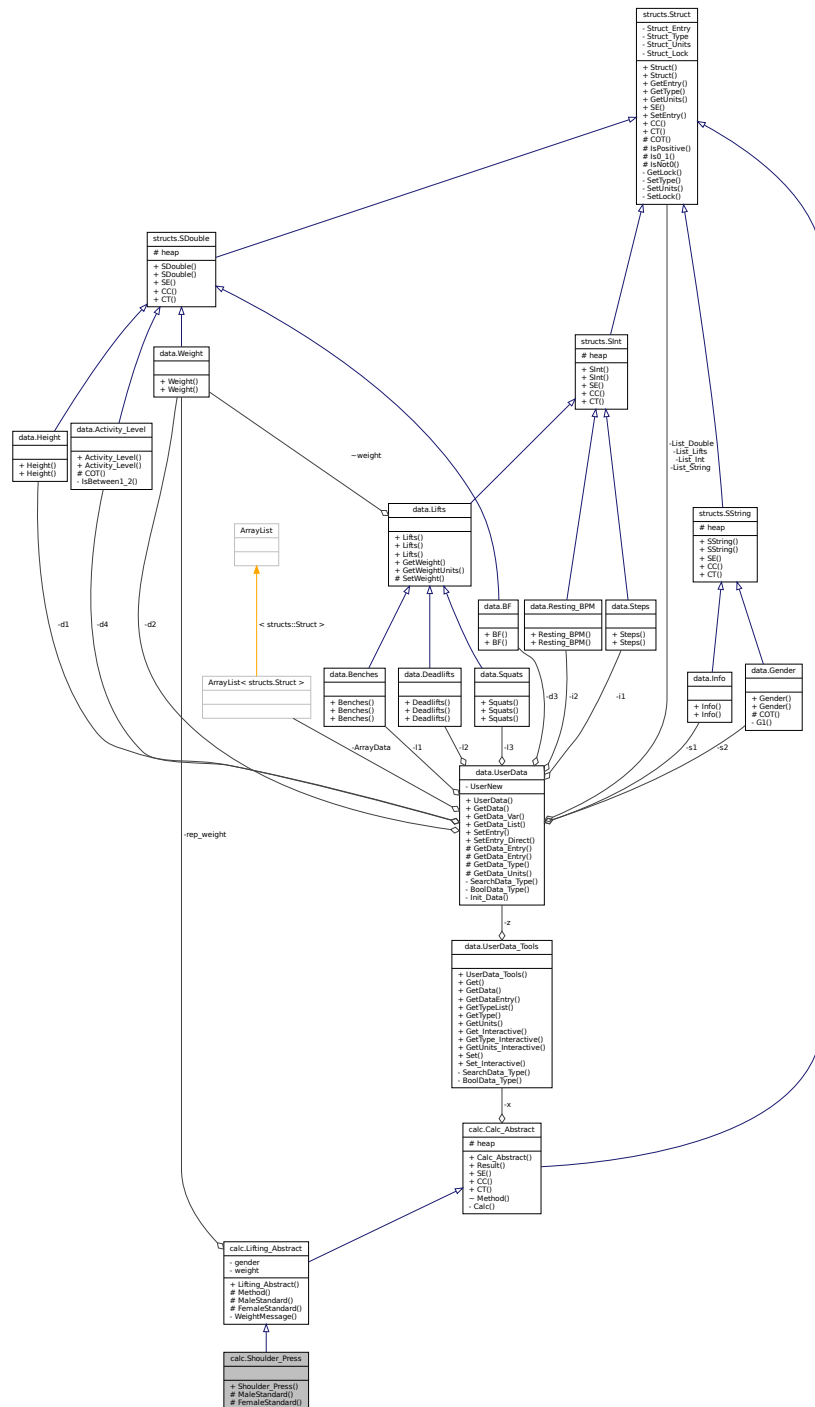
The documentation for this class was generated from the following file:

- `/home/jamie/java/forms_project/src/lib/gui/gui/SeventhScene.java`

## 6.52 calc.Shoulder\_Press Class Reference

Inheritance diagram for calc.Shoulder\_Press:





## Public Member Functions

- **Shoulder\_Press** (UserData z)

## Protected Member Functions

- String **MaleStandard** (int **weight**, int rweight)
- String **FemaleStandard** (int **weight**, int rweight)

## Additional Inherited Members

### 6.52.1 Constructor & Destructor Documentation

#### 6.52.1.1 Shoulder\_Press()

```
calc.Shoulder_Press.Shoulder_Press (
    UserData z )
```

### 6.52.2 Member Function Documentation

#### 6.52.2.1 FemaleStandard()

```
String calc.Shoulder_Press.FemaleStandard (
    int weight,
    int rweight ) [protected]
```

Reimplemented from [calc.Lifting\\_Abstract](#).

#### 6.52.2.2 MaleStandard()

```
String calc.Shoulder_Press.MaleStandard (
    int weight,
    int rweight ) [protected]
```

Reimplemented from [calc.Lifting\\_Abstract](#).

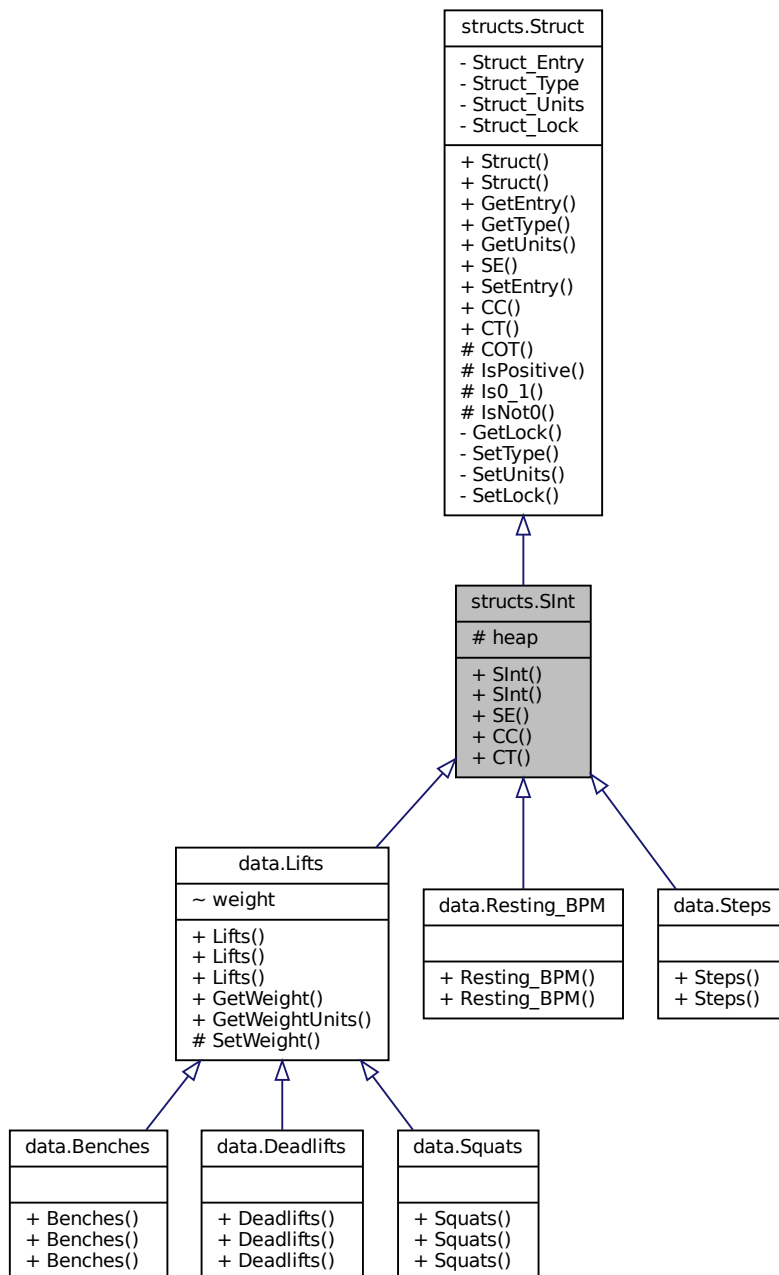
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/calc/Shoulder\\_Press.java](#)

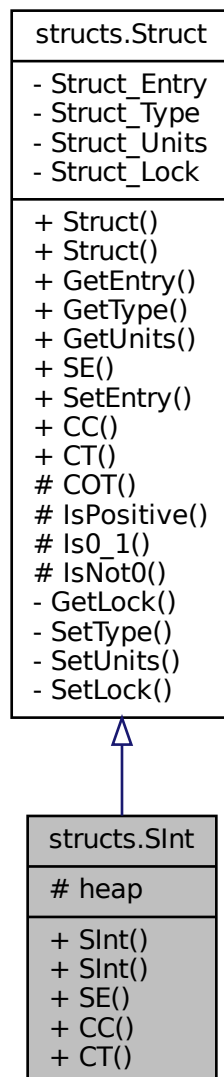
## 6.53 structs.SInt Class Reference

The class that holds Integer-typed data.

Inheritance diagram for structs.SInt:



Collaboration diagram for structs.SInt:



## Public Member Functions

- `SInt` (String Type, String Units)  
*Initializes `SInt` with default value null.*
- `SInt` (int o, String Type, String Units)  
*Initializes `SInt` with a defined value.*
- boolean `SE` (Object o)
- boolean `CC` (Object o)  
*Returns whether the object is positive or not.*
- boolean `CT` (Object o)  
*Returns whether an object is an integer or not.*



## Protected Attributes

- int [heap](#)

*Temporary storage for containing Integer values.*

## Additional Inherited Members

### 6.53.1 Detailed Description

The class that holds Integer-typed data.

### 6.53.2 Constructor & Destructor Documentation

#### 6.53.2.1 SInt() [1/2]

```
structs.SInt.SInt (  
    String Type,  
    String Units )
```

Initializes [SInt](#) with default value null.

##### Parameters

<i>Type</i>	The type of int.
<i>Units</i>	The units of the type.

#### 6.53.2.2 SInt() [2/2]

```
structs.SInt.SInt (  
    int o,  
    String Type,  
    String Units )
```

Initializes [SInt](#) with a defined value.

##### Parameters

<i>o</i>	The defined value for the class.
<i>Type</i>	The type of int.
<i>Units</i>	The units of the type.

### 6.53.3 Member Function Documentation

#### 6.53.3.1 CC()

```
boolean structs.SInt.CC (  
    Object o )
```

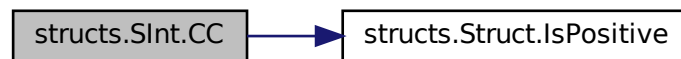
Returns whether the object is positive or not.

See also

[#Struct.CC](#)

Reimplemented from [structs.Struct](#).

Here is the call graph for this function:



Here is the caller graph for this function:



#### 6.53.3.2 CT()

```
boolean structs.SInt.CT (  
    Object o )
```

Returns whether an object is an integer or not.

## Parameters

<i>o</i>	The object to be tested if it is an int.
----------	--

## See also

#Struct.CT

Reimplemented from [structs.Struct](#).

Here is the caller graph for this function:



## 6.53.3.3 SE()

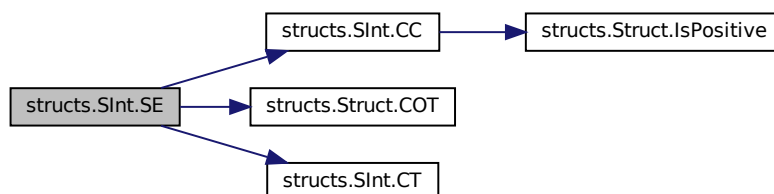
```
boolean structs.SInt.SE (  
    Object o )
```

## See also

#Struct.SE

Reimplemented from [structs.Struct](#).

Here is the call graph for this function:



## 6.53.4 Member Data Documentation

#### 6.53.4.1 heap

```
int structs.SInt.heap [protected]
```

Temporary storage for containing Integer values.

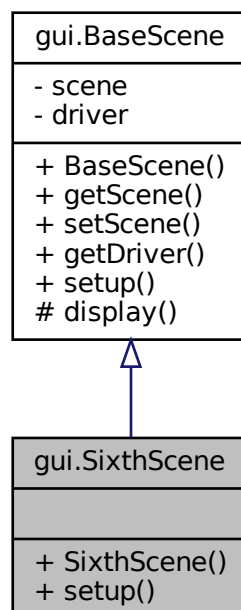
Assumes that anything that is a subclass of the numbers can be casted here.

The documentation for this class was generated from the following file:

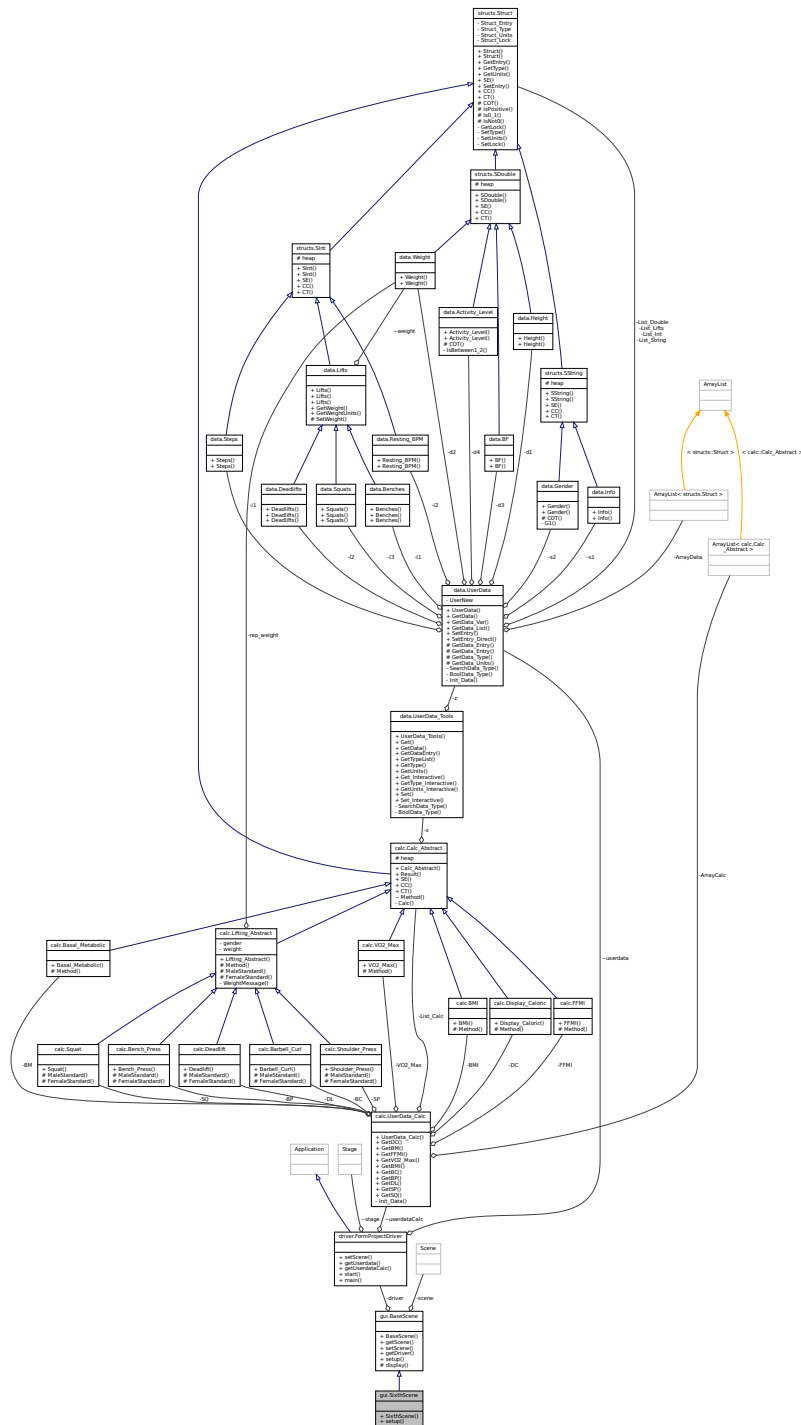
- [/home/jamie/java/forms\\_project/src/lib/structs/SInt.java](/home/jamie/java/forms_project/src/lib/structs/SInt.java)

## 6.54 gui.SixthScene Class Reference

Inheritance diagram for gui.SixthScene:



Collaboration diagram for gui.SixthScene:



## Public Member Functions

- SixthScene (FormProjectDriver driver)
- void setup ()

*Sets up the scene (the actual drawing)*

## Additional Inherited Members

### 6.54.1 Constructor & Destructor Documentation

#### 6.54.1.1 SixthScene()

```
gui.SixthScene.SixthScene (
    FormProjectDriver driver )
```

### 6.54.2 Member Function Documentation

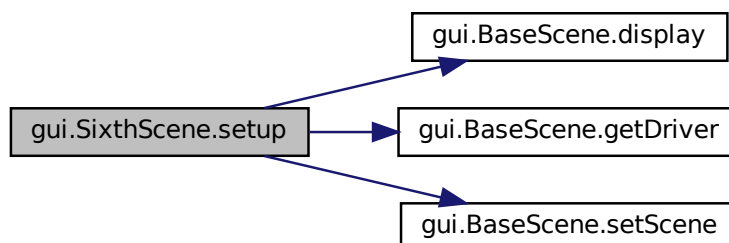
#### 6.54.2.1 setup()

```
void gui.SixthScene.setup ( )
```

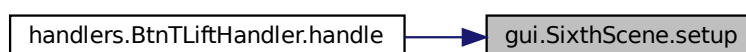
Sets up the scene (the actual drawing)

Reimplemented from [gui.BaseScene](#).

Here is the call graph for this function:



Here is the caller graph for this function:

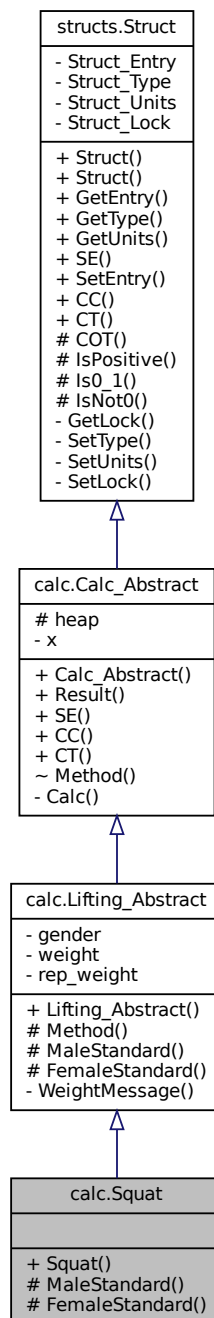


The documentation for this class was generated from the following file:

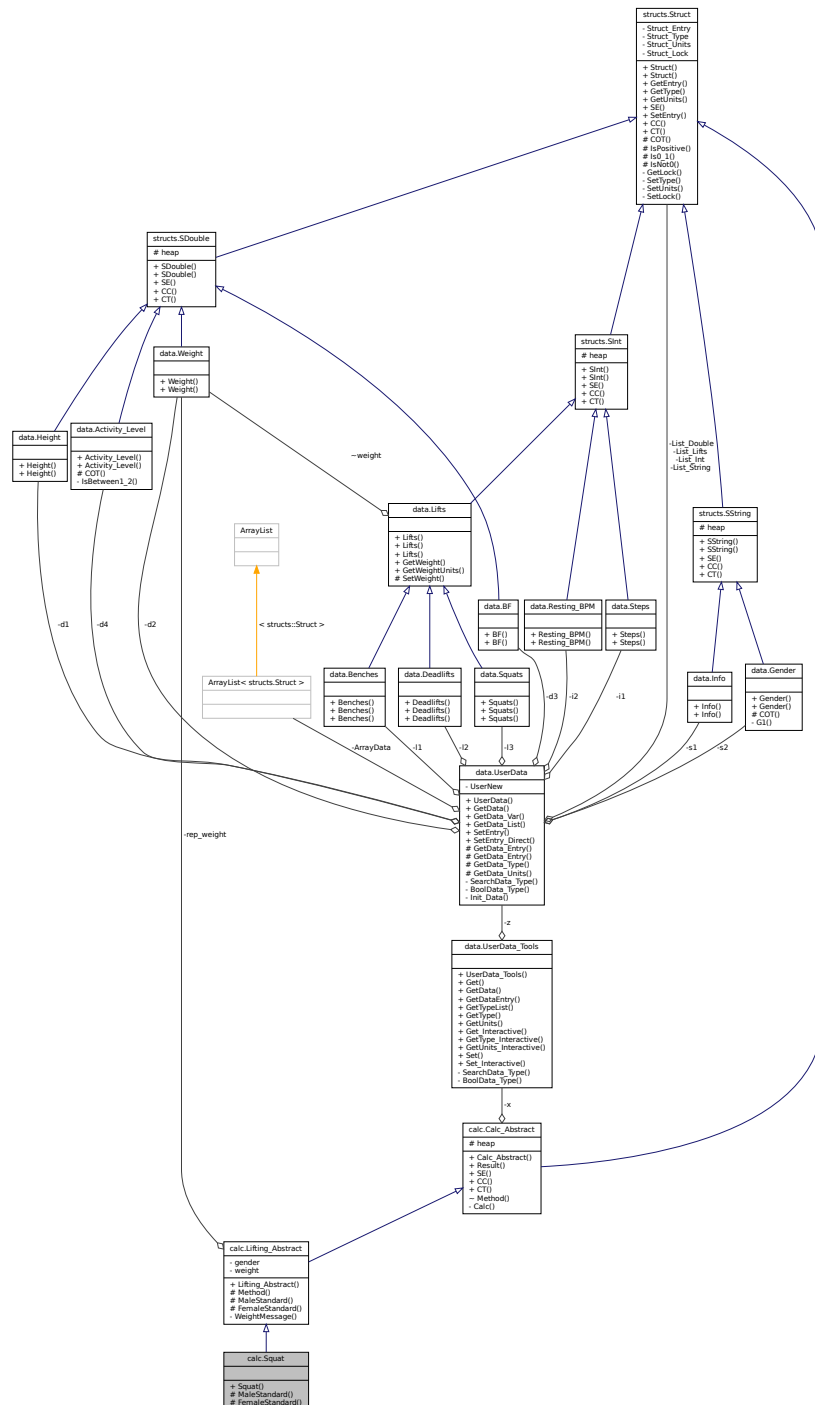
- `/home/jamie/java/forms_project/src/lib/gui/gui/SixthScene.java`

## 6.55 calc.Squat Class Reference

Inheritance diagram for calc.Squat:



Collaboration diagram for calc.Squat:



## Public Member Functions

- [Squat](#) ([UserData](#) z)

## Protected Member Functions

- String [MaleStandard](#) (int [weight](#), int rweight)
- String [FemaleStandard](#) (int [weight](#), int rweight)



## Additional Inherited Members

### 6.55.1 Constructor & Destructor Documentation

#### 6.55.1.1 Squat()

```
calc.Squat.Squat (
    UserData z )
```

### 6.55.2 Member Function Documentation

#### 6.55.2.1 FemaleStandard()

```
String calc.Squat.FemaleStandard (
    int weight,
    int rweight ) [protected]
```

Reimplemented from [calc.Lifting\\_Abstract](#).

#### 6.55.2.2 MaleStandard()

```
String calc.Squat.MaleStandard (
    int weight,
    int rweight ) [protected]
```

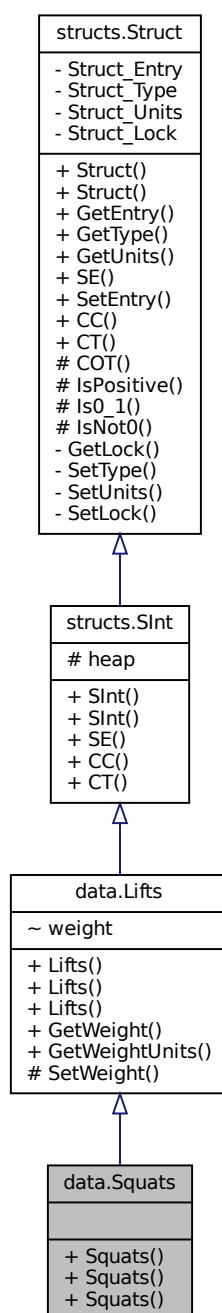
Reimplemented from [calc.Lifting\\_Abstract](#).

The documentation for this class was generated from the following file:

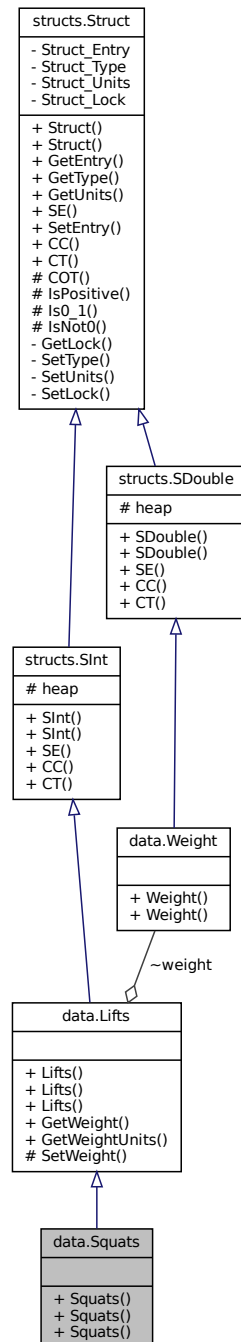
- [/home/jamie/java/forms\\_project/src/lib/calc/Squat.java](#)

## 6.56 data.Squats Class Reference

Inheritance diagram for data.Squats:



Collaboration diagram for data.Squats:



## Public Member Functions

- [Squats](#) ()
- [Squats](#) (int o)
- [Squats](#) (int o, double p)

## Additional Inherited Members

### 6.56.1 Constructor & Destructor Documentation

#### 6.56.1.1 Squats() [1/3]

```
data.Squats.Squats ( )
```

#### 6.56.1.2 Squats() [2/3]

```
data.Squats.Squats (
    int o )
```

#### 6.56.1.3 Squats() [3/3]

```
data.Squats.Squats (
    int o,
    double p )
```

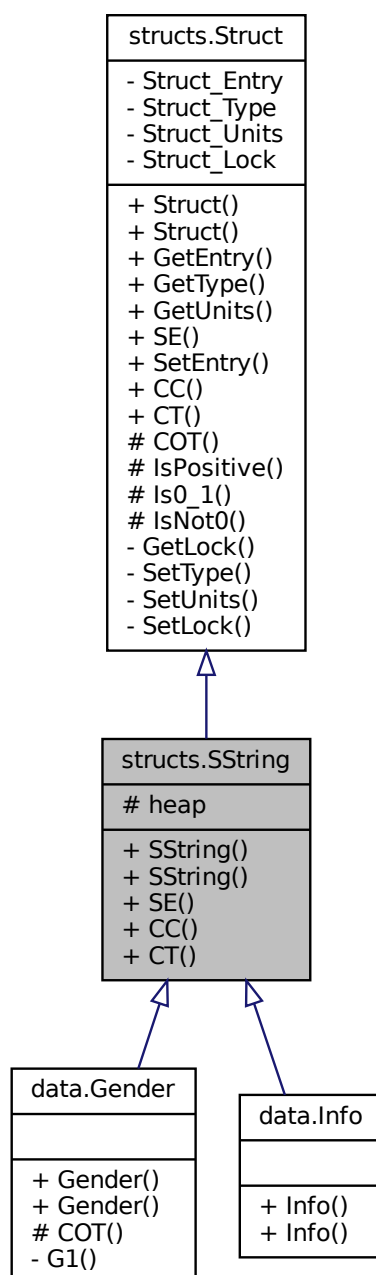
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/data/Squats.java](#)

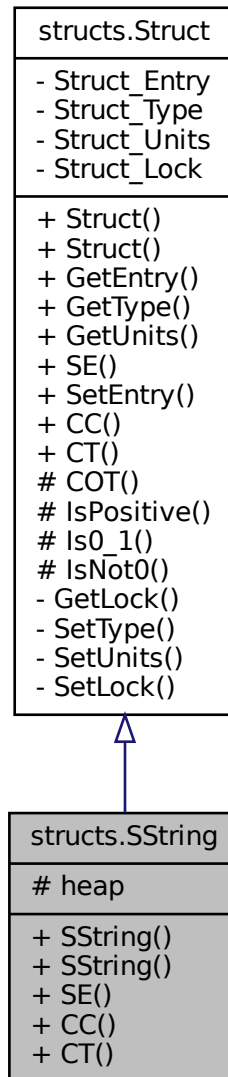
## 6.57 structs.SString Class Reference

The class that holds String-typed data.

Inheritance diagram for structs.SString:



Collaboration diagram for structs.SString:



## Public Member Functions

- [SString](#) (String Type, String Units)  
*Initializes [SString](#) with default value null.*
- [SString](#) (String o, String Type, String Units)  
*Initializes [SString](#) with a defined value.*
- boolean [SE](#) (Object o)
- boolean [CC](#) (Object o)
- boolean [CT](#) (Object o)  
*Returns whether an object is a String or not.*

## Protected Attributes

- String [heap](#)

*Temporary storage for containing String values.*

## Additional Inherited Members

### 6.57.1 Detailed Description

The class that holds String-typed data.

### 6.57.2 Constructor & Destructor Documentation

#### 6.57.2.1 SString() [1/2]

```
structs.SString.SString (  
    String Type,  
    String Units )
```

Initializes [SString](#) with default value null.

##### Parameters

<i>Type</i>	The type of String.
<i>Units</i>	Not typically used for the class.

#### 6.57.2.2 SString() [2/2]

```
structs.SString.SString (  
    String o,  
    String Type,  
    String Units )
```

Initializes [SString](#) with a defined value.

##### Parameters

<i>o</i>	The defined value for the class.
<i>Type</i>	The type of String.
<i>Units</i>	Not typically used for the class.

## 6.57.3 Member Function Documentation

### 6.57.3.1 CC()

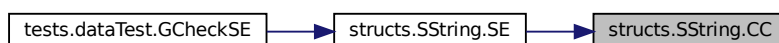
```
boolean structs.SString.CC (  
    Object o )
```

See also

[#Struct.CC](#)

Reimplemented from [structs.Struct](#).

Here is the caller graph for this function:



### 6.57.3.2 CT()

```
boolean structs.SString.CT (  
    Object o )
```

Returns whether an object is a String or not.

Parameters

<i>o</i>	The object to be tested if it is a String.
----------	--

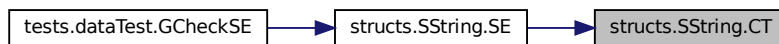
See also

[#Struct.CT](#)

Reimplemented from [structs.Struct](#).



Here is the caller graph for this function:



### 6.57.3.3 SE()

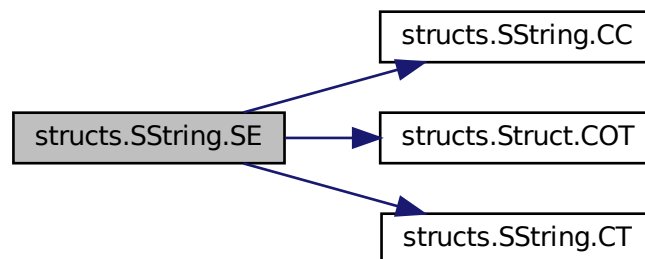
```
boolean structs.SString.SE (  
    Object o )
```

See also

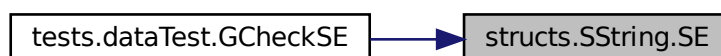
#Struct.SE

Reimplemented from [structs.Struct](#).

Here is the call graph for this function:



Here is the caller graph for this function:



## 6.57.4 Member Data Documentation

### 6.57.4.1 heap

`String structs.SString.heap [protected]`

Temporary storage for containing String values.

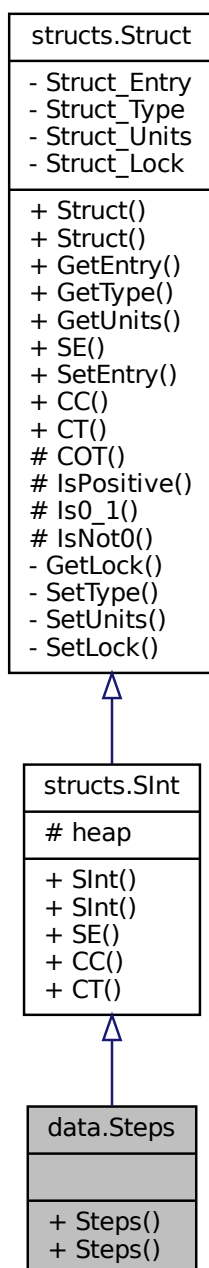
Assumes that anything that is a subclass of String can be casted here.

The documentation for this class was generated from the following file:

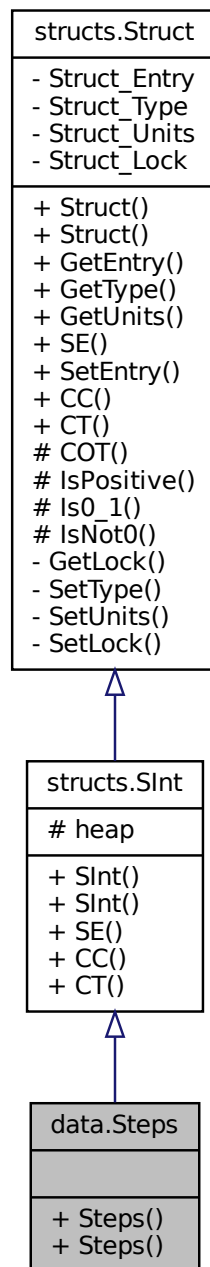
- `/home/jamie/java/forms_project/src/lib/structs/SString.java`

## 6.58 data.Steps Class Reference

Inheritance diagram for data.Steps:



Collaboration diagram for data.Steps:



## Public Member Functions

- [Steps](#) ()
- [Steps](#) (int o)



Collaboration diagram for structs.Struct:

structs.Struct
<ul style="list-style-type: none"> <li>- Struct_Entry</li> <li>- Struct_Type</li> <li>- Struct_Units</li> <li>- Struct_Lock</li> </ul>
<ul style="list-style-type: none"> <li>+ Struct()</li> <li>+ Struct()</li> <li>+ GetEntry()</li> <li>+ GetType()</li> <li>+ GetUnits()</li> <li>+ SE()</li> <li>+ SetEntry()</li> <li>+ CC()</li> <li>+ CT()</li> <li># COT()</li> <li># IsPositive()</li> <li># Is0_1()</li> <li># IsNot0()</li> <li>- GetLock()</li> <li>- SetType()</li> <li>- SetUnits()</li> <li>- SetLock()</li> </ul>

## Public Member Functions

- [Struct](#) (String Type, String Units)  
*Constructor that provides only a null Object.*
- [Struct](#) (Object Value, String Type, String Units)  
*Constructor that initializes [Struct](#) with a value.*
- Object [GetEntry](#) ()  
*Gets the value of [Struct\\_Entry](#).*
- String [GetType](#) ()  
*Gets the value of [Struct\\_Type](#).*
- String [GetUnits](#) ()  
*Gets the value of [Struct\\_Units](#).*
- abstract boolean [SE](#) (Object o)  
*Abstract Method to check whether a value to be entered is valid.*
- void [SetEntry](#) (Object o)  
*Sets the value of [Struct\\_Entry](#).*
- abstract boolean [CC](#) (Object o)  
*Provides a method to return a boolean whether an object can be set via [SetEntry](#) under various conditions.*
- abstract boolean [CT](#) (Object o)  
*Provides a method to return a boolean whether the object passes the basic type test.*

## Protected Member Functions

- boolean [COT](#) (Object o)  
*Provides a method to return whether the object's type is valid to be inputted into.*
- boolean [IsPositive](#) (double o)  
*Checks if object is Positive or is 0.*
- boolean [Is0\\_1](#) (double o)  
*Checks if object is between 0 and 1 inclusive.*
- boolean [IsNot0](#) (double o)  
*Checks if object is not 0.*

## Private Member Functions

- boolean [GetLock](#) ()  
*Gets the value of [Struct\\_Lock](#).*
- void [SetType](#) (String Type)  
*Sets the type of [Struct\\_Type](#).*
- void [SetUnits](#) (String Units)  
*Sets the units of [Struct\\_Units](#).*
- void [SetLock](#) ()  
*Sets [Struct\\_Lock](#) to true upon the constructor's initialization.*

## Private Attributes

- Object [Struct\\_Entry](#) = null  
*Stores various forms of data.*
- String [Struct\\_Type](#) = ""  
*Stores the type of data of [Struct\\_Entry](#).*
- String [Struct\\_Units](#) = ""  
*Stores the units of the data of [Struct\\_Entry](#).*
- boolean [Struct\\_Lock](#) = false  
*Locks [Struct\\_Type](#) and [Struct\\_Units](#) from modification after initialization of [Struct](#).*

### 6.59.1 Detailed Description

Provides the foundational DataType and primitive methods for all various inputs.

Includes get, set, and check methods for its objects.

### 6.59.2 Constructor & Destructor Documentation

#### 6.59.2.1 Struct() [1/2]

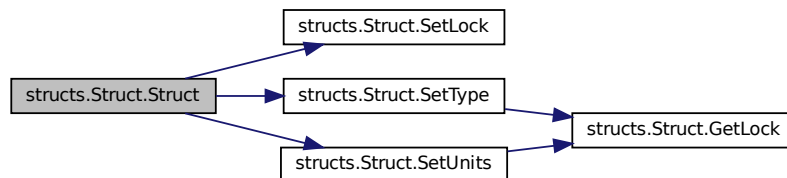
```
structs.Struct.Struct (
    String Type,
    String Units )
```

Constructor that provides only a null Object.

## Parameters

<i>Type</i>	The type of object.
<i>Value</i>	How the object is measured.

Here is the call graph for this function:



### 6.59.2.2 Struct() [2/2]

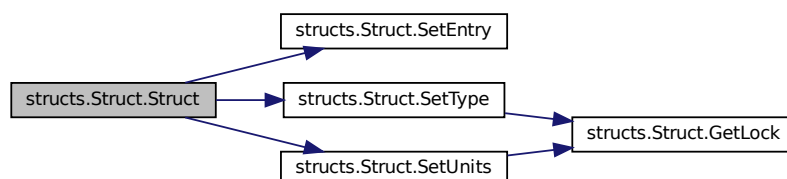
```
structs.Struct.Struct (
    Object Value,
    String Type,
    String Units )
```

Constructor that initializes `Struct` with a value.

## Parameters

<i>Value</i>	The value of the object.
<i>Type</i>	The type of object.
<i>Units</i>	How the object is measured.

Here is the call graph for this function:





### 6.59.3 Member Function Documentation

#### 6.59.3.1 CC()

```
abstract boolean structs.Struct.CC (  
    Object o ) [abstract]
```

Provides a method to return a boolean whether an object can be set via [SetEntry](#) under various conditions.

See also

[CC](#)

[CT](#)

[COT](#)

Reimplemented in [calc.Calc\\_Abstract](#), [structs.SInt](#), [structs.SString](#), and [structs.SDouble](#).

#### 6.59.3.2 COT()

```
boolean structs.Struct.COT (  
    Object o ) [protected]
```

Provides a method to return whether the object's type is valid to be inputted into.

E.g. String cannot go into Double, and vice versa, so it returns false.

Note

Lossy type casting may be encountered from Double to Integer.

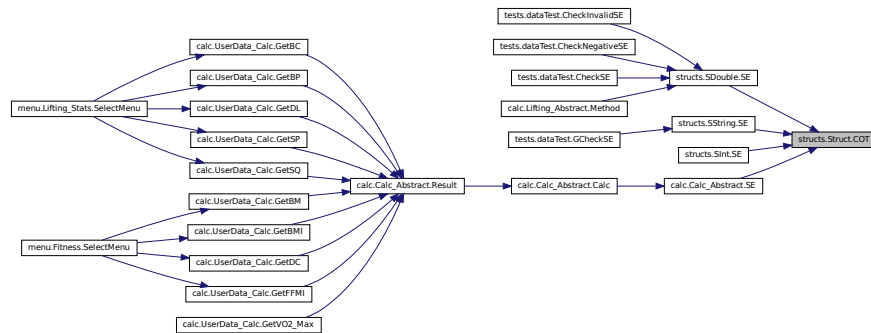
Lossless type casting may be encountered from Integer to Double.

Parameters

<i>o</i>	Object to be inspected on other conditions.
----------	---

Reimplemented in [data.Gender](#), and [data.Activity\\_Level](#).

Here is the caller graph for this function:



### 6.59.3.3 CT()

```
abstract boolean structs.Struct.CT (
    Object o ) [abstract]
```

Provides a method to return a boolean whether the object passes the basic type test.

#### Parameters

<i>o</i>	Object to be inspected on.
----------	----------------------------

Reimplemented in [calc.Calc\\_Abstract](#), [structs.SInt](#), [structs.SString](#), and [structs.SDouble](#).

### 6.59.3.4 GetEntry()

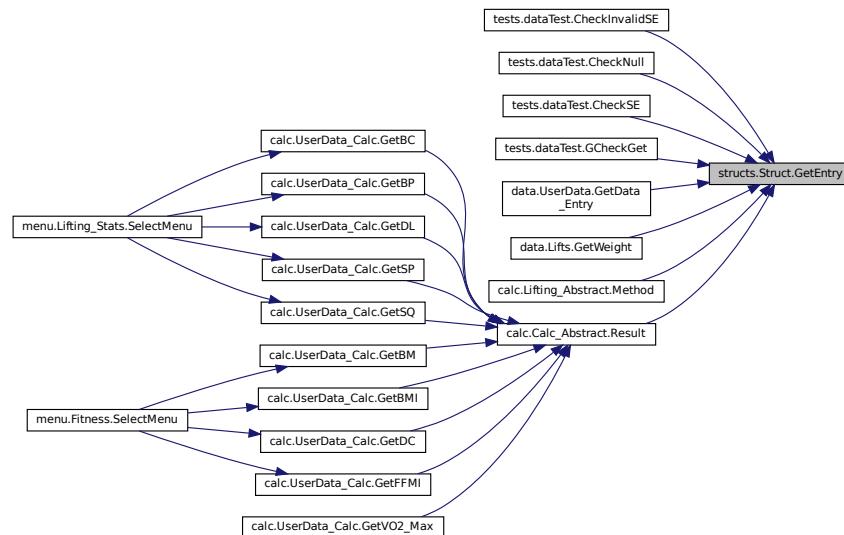
```
Object structs.Struct.GetEntry ( )
```

Gets the value of [Struct\\_Entry](#).

## Returns

[Struct\\_Entry](#)

Here is the caller graph for this function:



## 6.59.3.5 GetLock()

```
boolean structs.Struct.GetLock ( ) [private]
```

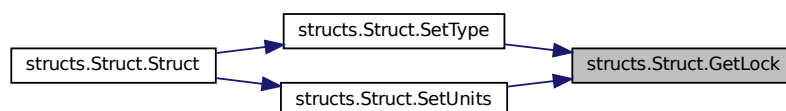
Gets the value of [Struct\\_Lock](#).

Used for confirming that there is no modification to the [Struct\\_Type](#) and [Struct\\_Units](#) once [Struct](#) has been initialized.

## Returns

[Struct\\_Lock](#)

Here is the caller graph for this function:



### 6.59.3.6 GetType()

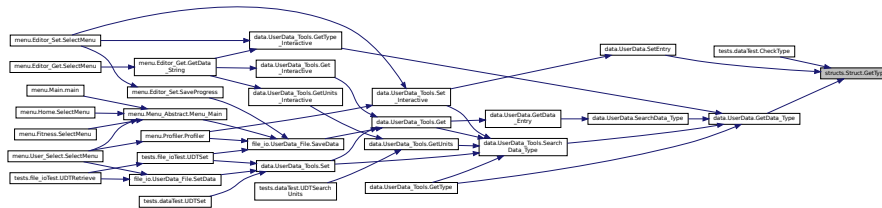
```
String structs.Struct.GetType ( )
```

Gets the value of [Struct\\_Type](#).

Returns

[Struct\\_Type](#)

Here is the caller graph for this function:



### 6.59.3.7 GetUnits()

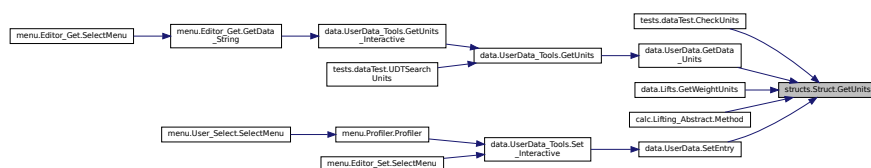
```
String structs.Struct.GetUnits ( )
```

Gets the value of [Struct\\_Units](#).

Returns

[Struct\\_Units](#)

Here is the caller graph for this function:



### 6.59.3.8 Is0\_1()

```
boolean structs.Struct.Is0_1 (
    double o ) [protected]
```

Checks if object is between 0 and 1 inclusive.

This assumes that the object is a double.

## Parameters

<i>o</i>	Object to check.
----------	------------------

**6.59.3.9 IsNot0()**

```
boolean structs.Struct.IsNot0 (  
    double o ) [protected]
```

Checks if object is not 0.

Typically used in conjunction with [IsPositive](#) and/or [Is0\\_1](#).

## Parameters

<i>o</i>	Object to check.
----------	------------------

**6.59.3.10 IsPositive()**

```
boolean structs.Struct.IsPositive (  
    double o ) [protected]
```

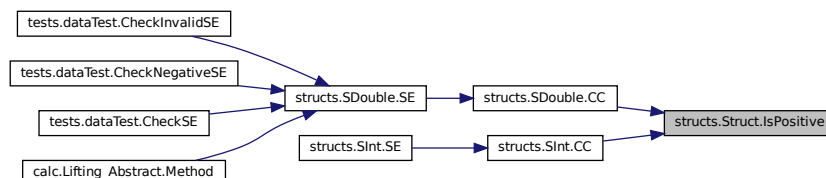
Checks if object is Positive or is 0.

This assumes that the object is a double.

## Parameters

<i>o</i>	Object to check.
----------	------------------

Here is the caller graph for this function:



### 6.59.3.11 SE()

```
abstract boolean structs.Struct.SE (
    Object o ) [abstract]
```

Abstract Method to check whether a value to be entered is valid.

Calls [CC](#), [COT](#), and [CT](#) methods to check if the object is valid for entry.

#### Parameters

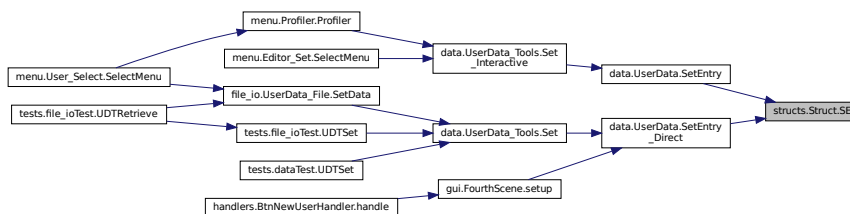
<i>o</i>	Object to be inputted.
----------	------------------------

#### See also

[CC](#), [COT](#), [CT](#)

Reimplemented in [calc.Calc\\_Abstract](#), [structs.SInt](#), [structs.SString](#), and [structs.SDouble](#).

Here is the caller graph for this function:



### 6.59.3.12 SetEntry()

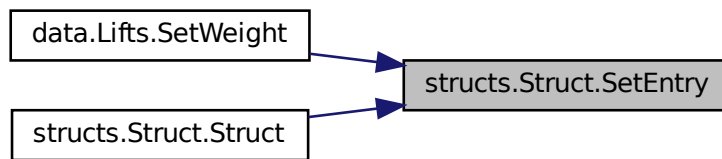
```
void structs.Struct.SetEntry (
    Object o )
```

Sets the value of [Struct\\_Entry](#).

#### Parameters

<i>o</i>	Object to be inputted.
----------	------------------------

Here is the caller graph for this function:



#### 6.59.3.13 SetLock()

```
void structs.Struct.SetLock ( ) [private]
```

Sets [Struct\\_Lock](#) to true upon the constructor's initialization.

Here is the caller graph for this function:



#### 6.59.3.14 SetType()

```
void structs.Struct.SetType (
    String Type ) [private]
```

Sets the type of [Struct\\_Type](#).

Function does not change [Struct\\_Type](#) after [Struct](#) has been initialized. This is made possible by calling [GetLock](#).

##### Parameters

<i>Type</i>	The value of <a href="#">Struct_Type</a> .
-------------	--

Here is the call graph for this function:



Here is the caller graph for this function:



### 6.59.3.15 SetUnits()

```
void structs.Struct.SetUnits (
    String Units ) [private]
```

Sets the units of [Struct\\_Units](#).

Function does not change [Struct\\_Type](#) after [Struct](#) has been initialized. This is made possible by calling [GetLock](#).

#### Parameters

<i>Units</i>	The value of <a href="#">Struct_Units</a>
--------------	---

Here is the call graph for this function:





Here is the caller graph for this function:



## 6.59.4 Member Data Documentation

### 6.59.4.1 Struct\_Entry

```
Object structs.Struct.Struct_Entry = null [private]
```

Stores various forms of data.

### 6.59.4.2 Struct\_Lock

```
boolean structs.Struct.Struct_Lock = false [private]
```

Locks [Struct\\_Type](#) and [Struct\\_Units](#) from modification after initialization of [Struct](#).

### 6.59.4.3 Struct\_Type

```
String structs.Struct.Struct_Type = "" [private]
```

Stores the type of data of [Struct\\_Entry](#).

E.g. Weight, Height, etc.

### 6.59.4.4 Struct\_Units

```
String structs.Struct.Struct_Units = "" [private]
```

Stores the units of the data of [Struct\\_Entry](#).

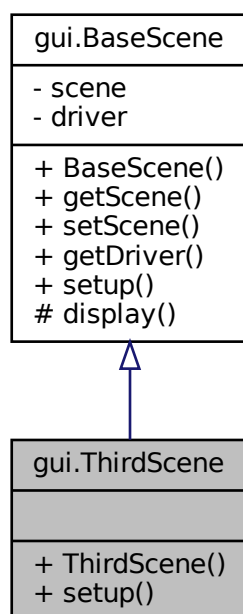
E.g. If [Struct\\_Type](#) is Weight, then [Struct\\_Units](#) is lbs.

The documentation for this class was generated from the following file:

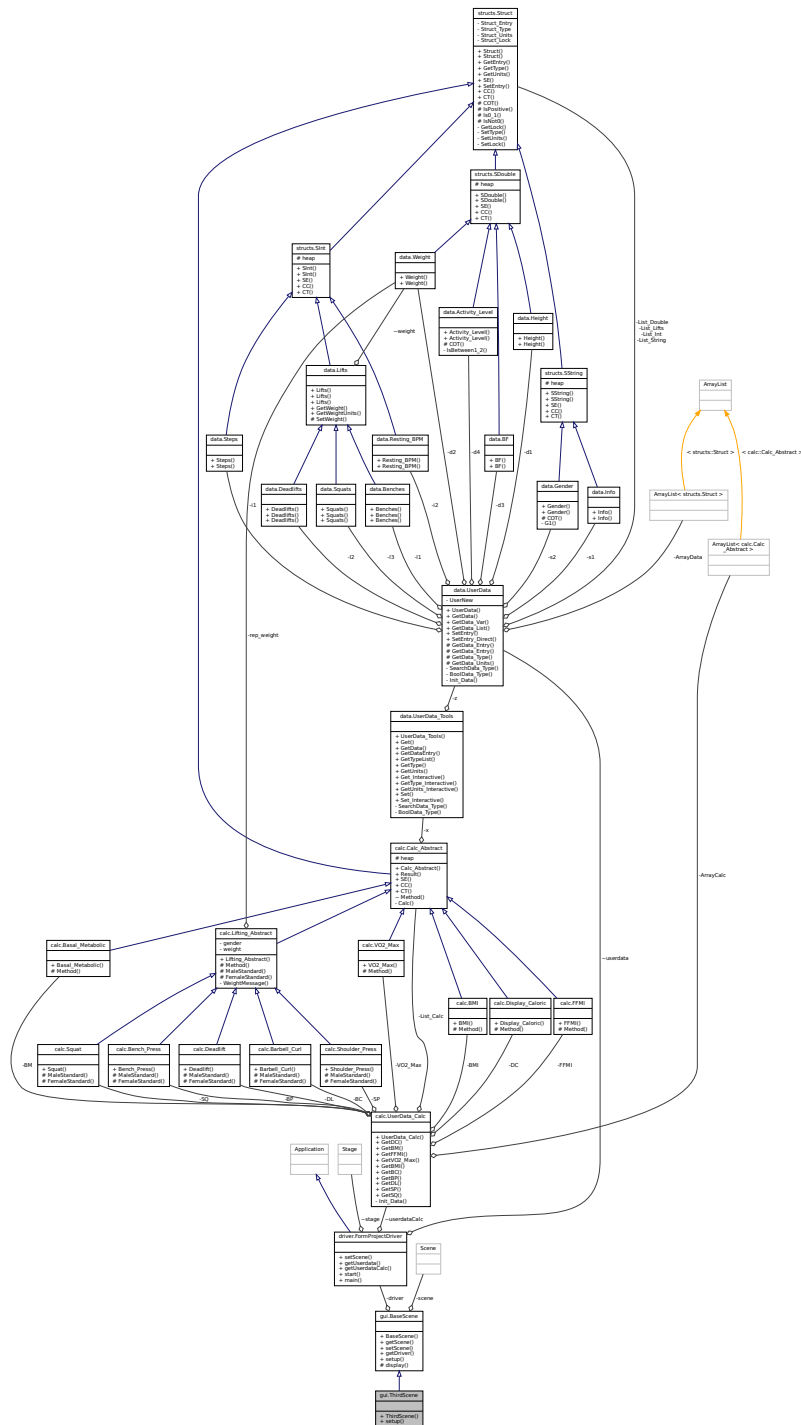
- `/home/jamie/java/forms_project/src/lib/structs/Struct.java`

## 6.60 gui.ThirdScene Class Reference

Inheritance diagram for gui.ThirdScene:



Collaboration diagram for gui.ThirdScene:



## Public Member Functions

- ThirdScene (FormProjectDriver driver)
- void setup ()

*Sets up the scene (the actual drawing)*

## Additional Inherited Members

### 6.60.1 Constructor & Destructor Documentation

#### 6.60.1.1 ThirdScene()

```
gui.ThirdScene.ThirdScene (
    FormProjectDriver driver )
```

### 6.60.2 Member Function Documentation

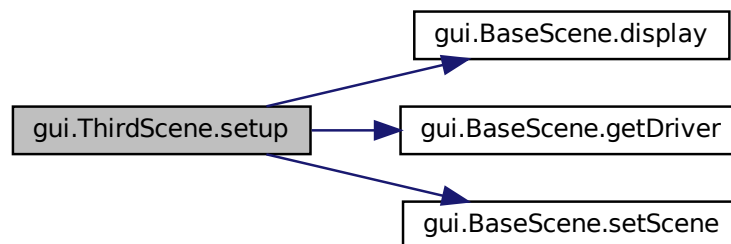
#### 6.60.2.1 setup()

```
void gui.ThirdScene.setup ( )
```

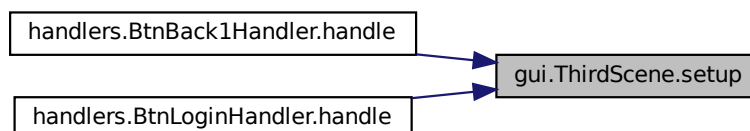
Sets up the scene (the actual drawing)

Reimplemented from [gui.BaseScene](#).

Here is the call graph for this function:



Here is the caller graph for this function:

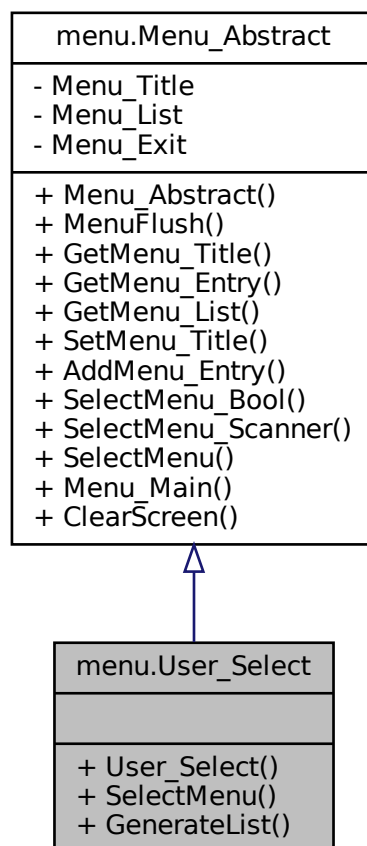


The documentation for this class was generated from the following file:

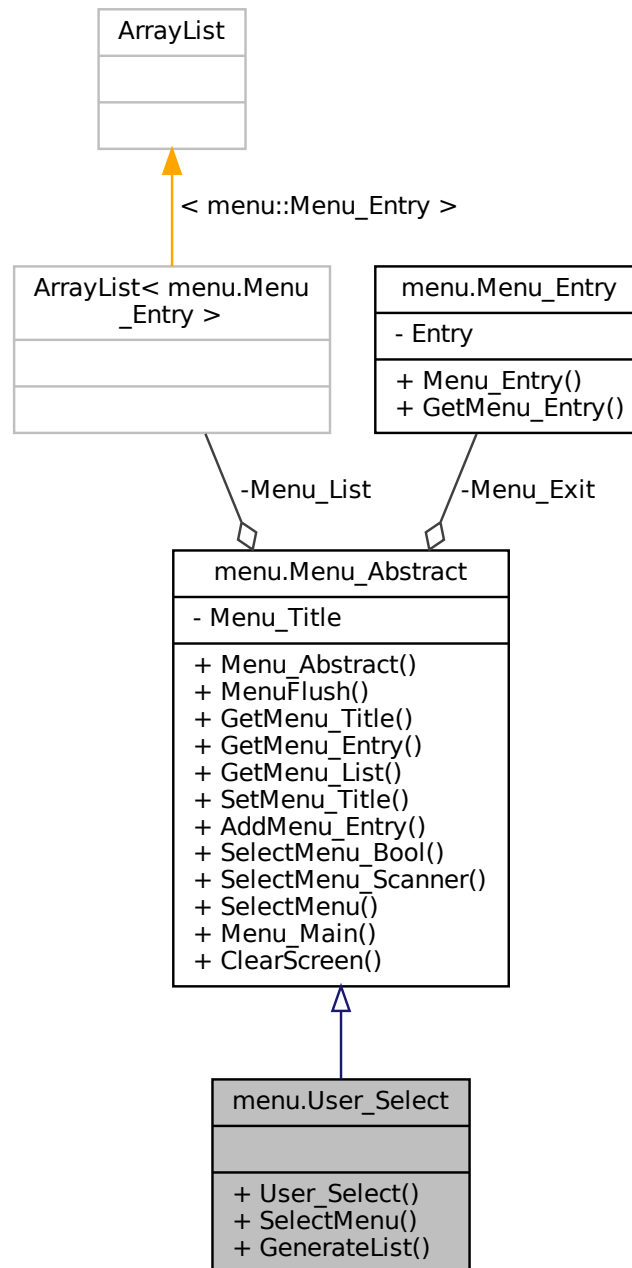
- `/home/jamie/java/forms_project/src/lib/gui/gui/ThirdScene.java`

## 6.61 menu.User\_Select Class Reference

Inheritance diagram for menu.User\_Select:



Collaboration diagram for menu.User\_Select:



## Public Member Functions

- [User\\_Select](#) ()
- void [SelectMenu](#) (int choice, [UserData](#) z)

*Abstract class that forces the coder to generate the current menu entries manually.*

- void [GenerateList](#) ()

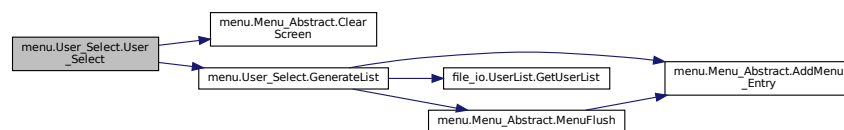
## Additional Inherited Members

### 6.61.1 Constructor & Destructor Documentation

#### 6.61.1.1 User\_Select()

```
menu.User_Select.User_Select ( )
```

Here is the call graph for this function:

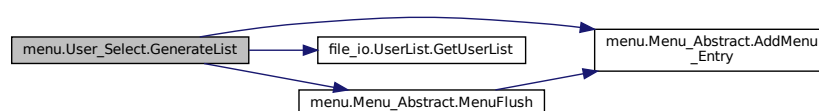


### 6.61.2 Member Function Documentation

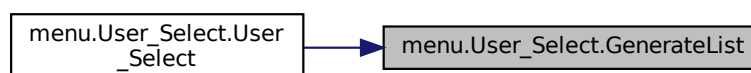
#### 6.61.2.1 GenerateList()

```
void menu.User_Select.GenerateList ( )
```

Here is the call graph for this function:



Here is the caller graph for this function:

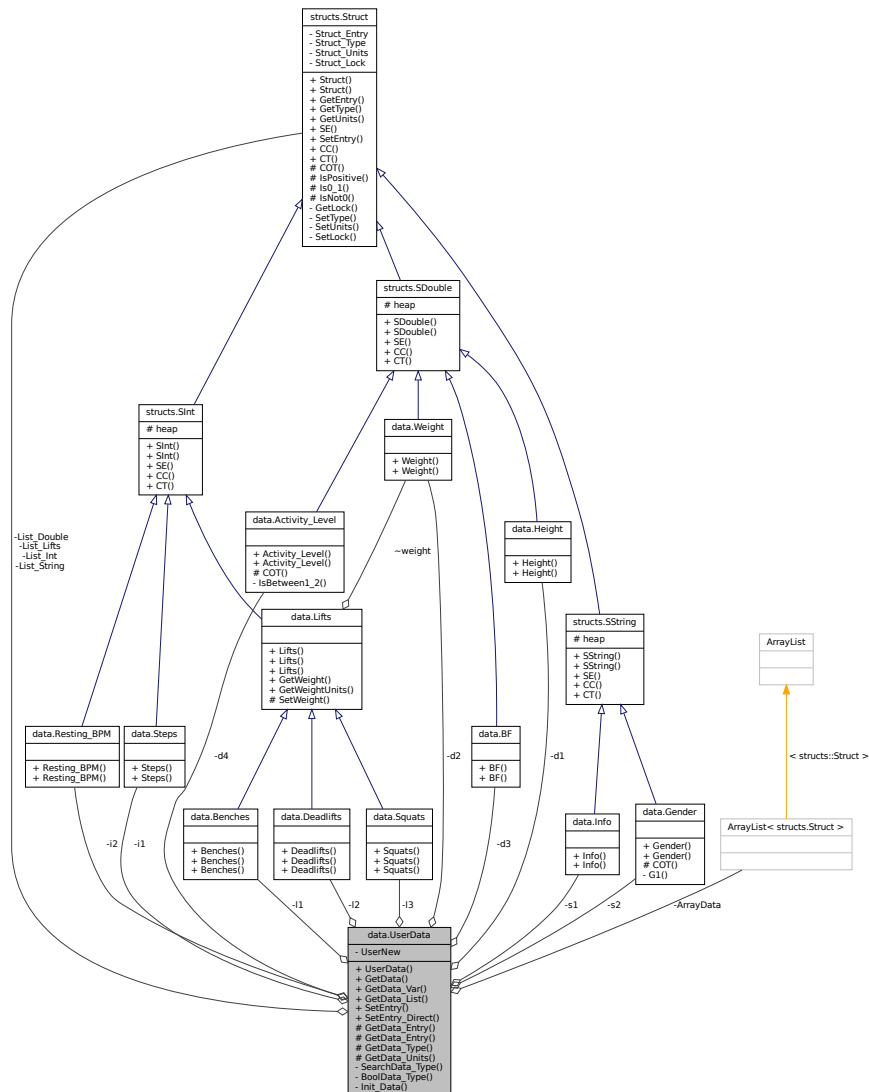






## 6.62 data.UserData Class Reference

Collaboration diagram for data.UserData:



### Public Member Functions

- `UserData ()`
- `ArrayList< Struct > GetData ()`
- `Struct GetData_Var (int choice)`
- `ArrayList< String > GetData_List ()`
- `boolean SetEntry (int choice)`
- `boolean SetEntry_Direct (int choice, Object value)`

### Protected Member Functions

- `Object GetData_Entry (String target)`
- `Object GetData_Entry (int choice)`
- `String GetData_Type (int choice)`
- `String GetData_Units (int choice)`

## Private Member Functions

- int [SearchData\\_Type](#) (String target)
- boolean [BoolData\\_Type](#) (int i)
- void [Init\\_Data](#) ()

## Private Attributes

- [Steps](#) i1 = new [Steps](#)()
- [Resting\\_BPM](#) i2 = new [Resting\\_BPM](#)()
- [Struct](#)[] [List\\_Int](#) = {i1, i2}
- [Height](#) d1 = new [Height](#)()
- [Weight](#) d2 = new [Weight](#)()
- [BF](#) d3 = new [BF](#)()
- [Activity\\_Level](#) d4 = new [Activity\\_Level](#)()
- [Struct](#)[] [List\\_Double](#) = {d1, d2, d3, d4}
- [Benches](#) l1 = new [Benches](#)()
- [Deadlifts](#) l2 = new [Deadlifts](#)()
- [Squats](#) l3 = new [Squats](#)()
- [Struct](#)[] [List\\_Lifts](#) = {l1, l2, l3}
- [Info](#) s1 = new [Info](#)()
- [Gender](#) s2 = new [Gender](#)()
- [Struct](#)[] [List\\_String](#) = {s1, s2}
- boolean [UserNew](#) = false
- [ArrayList](#)< [Struct](#) > [ArrayData](#) = new [ArrayList](#)<[Struct](#)>()

## 6.62.1 Constructor & Destructor Documentation

### 6.62.1.1 UserData()

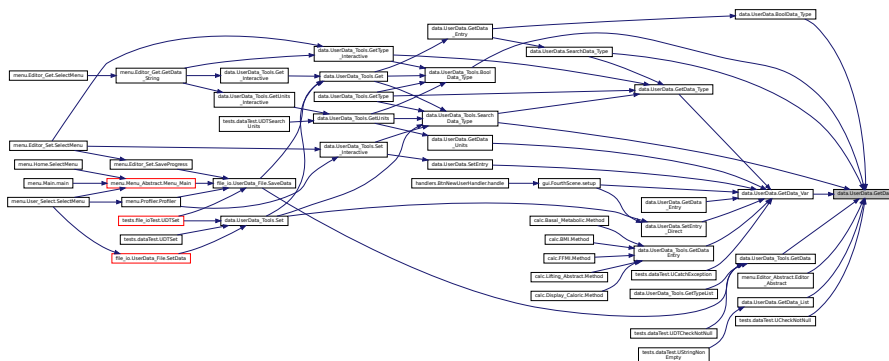
```
data.UserData.UserData ( )
```

Here is the call graph for this function:



## 6.62.2 Member Function Documentation

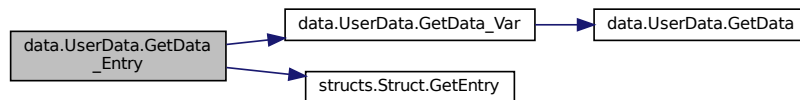
```
boolean data.UserData.BoolData_Type (
    int i ) [private]
```



### 6.62.2.3 GetData\_Entry() [1/2]

```
Object data.UserData.GetData_Entry (
    int choice ) [protected]
```

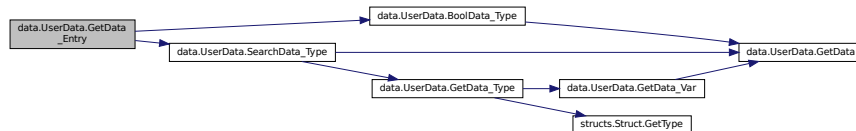
Here is the call graph for this function:



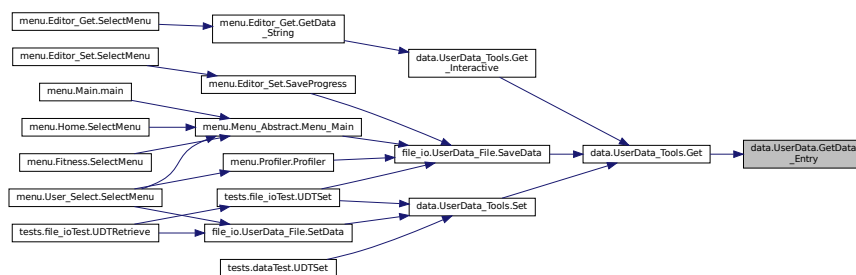
### 6.62.2.4 GetData\_Entry() [2/2]

```
Object data.UserData.GetData_Entry (
    String target ) [protected]
```

Here is the call graph for this function:



Here is the caller graph for this function:



### 6.62.2.5 GetData\_List()

```
ArrayList<String> data.UserData.GetData_List ( )
```

Here is the call graph for this function:



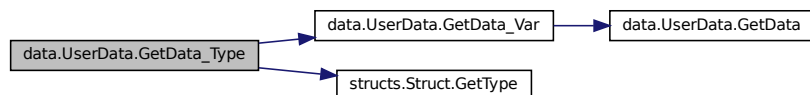
Here is the caller graph for this function:



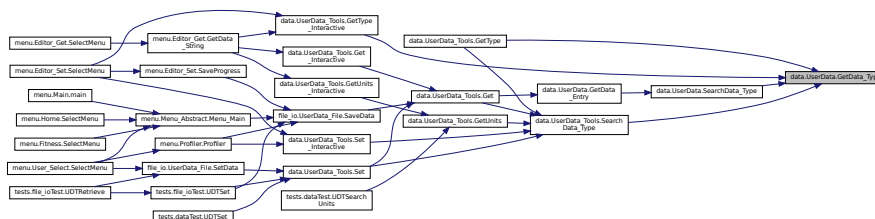
### 6.62.2.6 GetData\_Type()

```
String data.UserData.GetData_Type (
    int choice ) [protected]
```

Here is the call graph for this function:



Here is the caller graph for this function:





### 6.62.2.9 Init\_Data()

```
void data.UserData.Init_Data ( ) [private]
```

Here is the caller graph for this function:



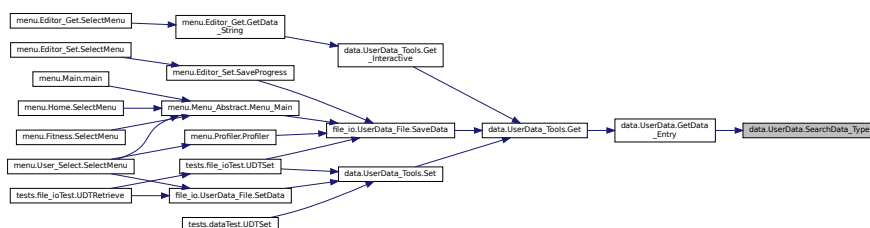
### 6.62.2.10 SearchData\_Type()

```
int data.UserData.SearchData_Type (
    String target ) [private]
```

Here is the call graph for this function:



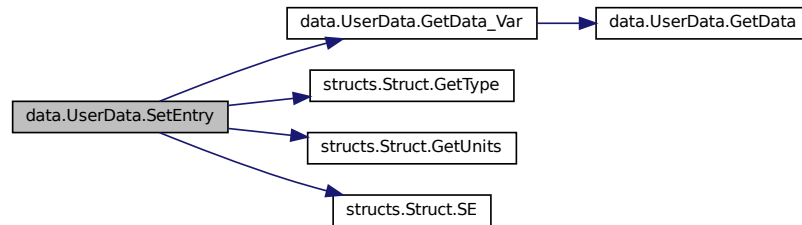
Here is the caller graph for this function:



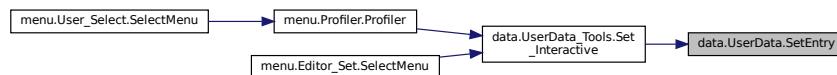
### 6.62.2.11 SetEntry()

```
boolean data.UserData.SetEntry (
    int choice )
```

Here is the call graph for this function:



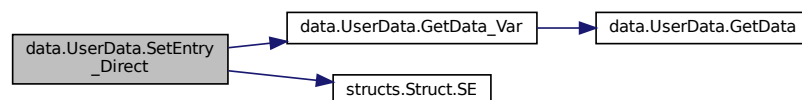
Here is the caller graph for this function:



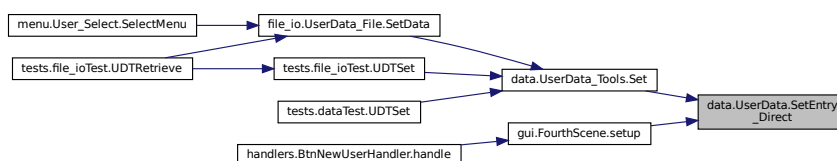
### 6.62.2.12 SetEntry\_Direct()

```
boolean data.UserData.SetEntry_Direct (
    int choice,
    Object value )
```

Here is the call graph for this function:



Here is the caller graph for this function:





## 6.62.3 Member Data Documentation

### 6.62.3.1 ArrayData

```
ArrayList<Struct> data.UserData.ArrayData = new ArrayList<Struct>() [private]
```

### 6.62.3.2 d1

```
Height data.UserData.d1 = new Height() [private]
```

### 6.62.3.3 d2

```
Weight data.UserData.d2 = new Weight() [private]
```

### 6.62.3.4 d3

```
BF data.UserData.d3 = new BF() [private]
```

### 6.62.3.5 d4

```
Activity_Level data.UserData.d4 = new Activity_Level() [private]
```

### 6.62.3.6 i1

```
Steps data.UserData.i1 = new Steps() [private]
```

### 6.62.3.7 i2

```
Resting_BPM data.UserData.i2 = new Resting_BPM() [private]
```

#### 6.62.3.8 l1

```
Benches data.UserData.l1 = new Benches() [private]
```

#### 6.62.3.9 l2

```
Deadlifts data.UserData.l2 = new Deadlifts() [private]
```

#### 6.62.3.10 l3

```
Squats data.UserData.l3 = new Squats() [private]
```

#### 6.62.3.11 List\_Double

```
Struct [] data.UserData.List_Double = {d1, d2, d3, d4} [private]
```

#### 6.62.3.12 List\_Int

```
Struct [] data.UserData.List_Int = {i1, i2} [private]
```

#### 6.62.3.13 List\_Lifts

```
Struct [] data.UserData.List_Lifts = {l1, l2, l3} [private]
```

#### 6.62.3.14 List\_String

```
Struct [] data.UserData.List_String = {s1, s2} [private]
```

#### 6.62.3.15 s1

```
Info data.UserData.s1 = new Info() [private]
```

### 6.62.3.16 s2

```
Gender data.UserData.s2 = new Gender() [private]
```

### 6.62.3.17 UserNew

```
boolean data.UserData.UserNew = false [private]
```

The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/data/UserData.java](#)

## 6.63 calc.UserData\_Calc Class Reference

Class that stores all results of the calculations.



- Returns *Basal\_Metabolic* values.
- Object `GetFFMI ()`  
Returns *FFMI* values.
- Object `GetVO2_Max ()`  
Returns *VO2\_Max* values.
- Object `GetBMI ()`  
Returns *BMI* values.
- Object `GetBC ()`
- Object `GetBP ()`
- Object `GetDL ()`
- Object `GetSP ()`
- Object `GetSQ ()`

## Private Member Functions

- void `Init_Data ()`  
Initializes the calculation values into *ArrayCalc*.

## Private Attributes

- *Display\_Caloric* DC  
Object for *Display\_Caloric*.
- *Basal\_Metabolic* BM  
Object for *Basal\_Metabolic*.
- *FFMI* FFMI  
Object for *FFMI*.
- *VO2\_Max* VO2\_Max  
Object for *VO2\_Max*.
- *BMI* BMI  
Object for *BMI*.
- *Barbell\_Curl* BC  
Sets the array of calculations to be accessed.
- *Bench\_Press* BP
- *Deadlift* DL
- *Shoulder\_Press* SP
- *Squat* SQ
- *Calc\_Abstract*[] *List\_Calc*
- `ArrayList< Calc_Abstract > ArrayCalc = new ArrayList<Calc_Abstract>()`  
An *ArrayList* object for all the calculations.

### 6.63.1 Detailed Description

Class that stores all results of the calculations.

### 6.63.2 Constructor & Destructor Documentation

#### 6.63.2.1 UserData\_Calc()

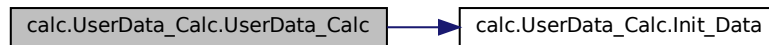
```
calc.UserData_Calc.UserData_Calc (
    UserData z )
```

Constructs the results of the #UserData.

## Parameters

z	User's data.
---	--------------

Here is the call graph for this function:

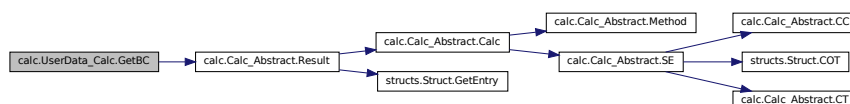


### 6.63.3 Member Function Documentation

#### 6.63.3.1 GetBC()

Object `calc.UserData_Calc.GetBC ( )`

Here is the call graph for this function:



Here is the caller graph for this function:

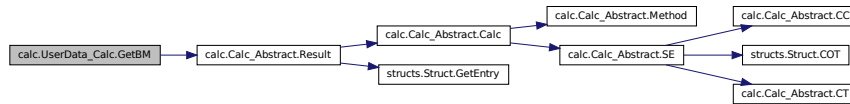


### 6.63.3.2 GetBM()

Object `calc.UserData_Calc.GetBM ( )`

Returns [Basal\\_Metabolic](#) values.

Here is the call graph for this function:



Here is the caller graph for this function:

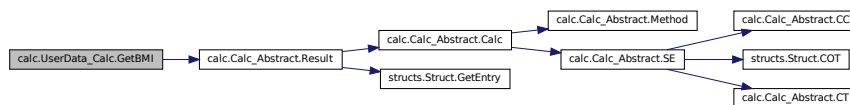


### 6.63.3.3 GetBMI()

Object `calc.UserData_Calc.GetBMI ( )`

Returns [BMI](#) values.

Here is the call graph for this function:



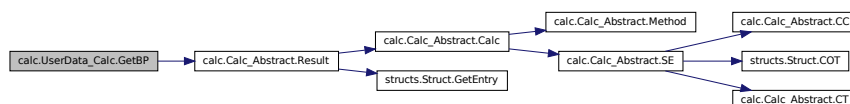
Here is the caller graph for this function:



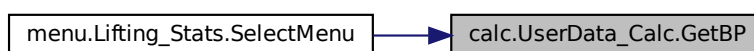
#### 6.63.3.4 GetBP()

Object `calc.UserData_Calc.GetBP ( )`

Here is the call graph for this function:



Here is the caller graph for this function:

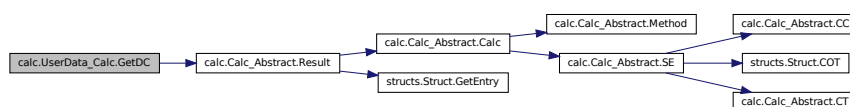


#### 6.63.3.5 GetDC()

Object `calc.UserData_Calc.GetDC ( )`

Returns [Display\\_Caloric](#) values.

Here is the call graph for this function:



Here is the caller graph for this function:

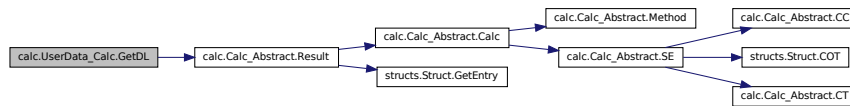




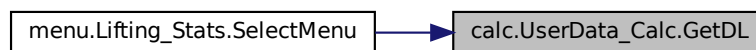
### 6.63.3.6 GetDL()

Object `calc.UserData_Calc.GetDL ( )`

Here is the call graph for this function:



Here is the caller graph for this function:

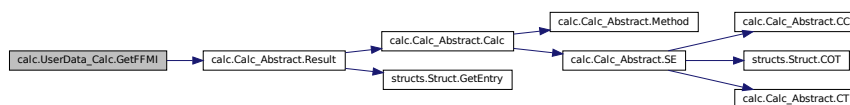


### 6.63.3.7 GetFFMI()

Object `calc.UserData_Calc.GetFFMI ( )`

Returns **FFMI** values.

Here is the call graph for this function:



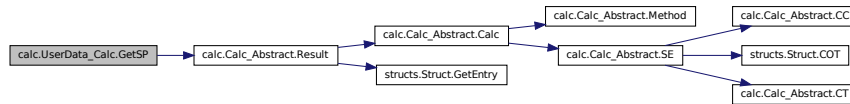
Here is the caller graph for this function:



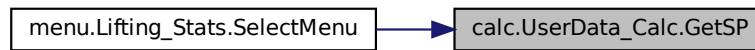
### 6.63.3.8 GetSP()

Object `calc.UserData_Calc.GetSP ( )`

Here is the call graph for this function:



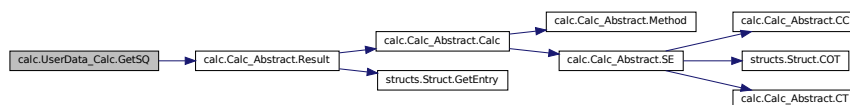
Here is the caller graph for this function:



### 6.63.3.9 GetSQ()

Object `calc.UserData_Calc.GetSQ ( )`

Here is the call graph for this function:



Here is the caller graph for this function:

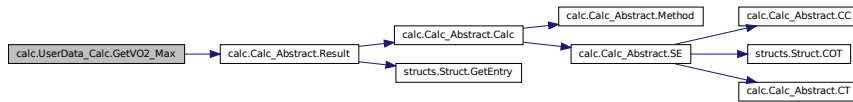


### 6.63.3.10 GetVO2\_Max()

Object `calc.UserData_Calc.GetVO2_Max ( )`

Returns [VO2\\_Max](#) values.

Here is the call graph for this function:

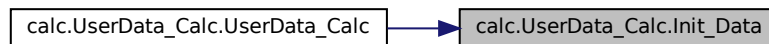


### 6.63.3.11 Init\_Data()

void `calc.UserData_Calc.Init_Data ( )` [private]

Initializes the calculation values into [ArrayCalc](#).

Here is the caller graph for this function:



## 6.63.4 Member Data Documentation

### 6.63.4.1 ArrayCalc

```
ArrayList<Calc_Abstract> calc.UserData_Calc.ArrayCalc = new ArrayList<Calc_Abstract>() [private]
```

An ArrayList object for all the calculations.

### 6.63.4.2 BC

```
Barbell_Curl calc.UserData_Calc.BC [private]
```

Sets the array of calculations to be accessed.

#### 6.63.4.3 BM

`Basal_Metabolic` `calc.UserData_Calc.BM` [private]

Object for `Basal_Metabolic`.

#### 6.63.4.4 BMI

`BMI` `calc.UserData_Calc.BMI` [private]

Object for `BMI`.

#### 6.63.4.5 BP

`Bench_Press` `calc.UserData_Calc.BP` [private]

#### 6.63.4.6 DC

`Display_Caloric` `calc.UserData_Calc.DC` [private]

Object for `Display_Caloric`.

#### 6.63.4.7 DL

`Deadlift` `calc.UserData_Calc.DL` [private]

#### 6.63.4.8 FFMI

`FFMI` `calc.UserData_Calc.FFMI` [private]

Object for `FFMI`.

#### 6.63.4.9 List\_Calc

```
Calc_Abstract [] calc.UserData_Calc.List_Calc [private]
```

##### Initial value:

```
= {DC, BM, FFMI,  
   BMI, VO2_Max, BC, BP, DL, SP, SQ  
}
```

#### 6.63.4.10 SP

```
Shoulder_Press calc.UserData_Calc.SP [private]
```

#### 6.63.4.11 SQ

```
Squat calc.UserData_Calc.SQ [private]
```

#### 6.63.4.12 VO2\_Max

```
VO2_Max calc.UserData_Calc.VO2_Max [private]
```

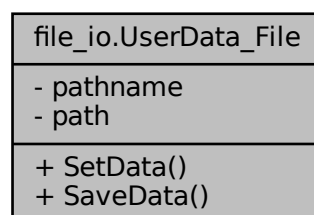
Object for [VO2\\_Max](#).

The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/calc/UserData\\_Calc.java](#)

## 6.64 file\_io.UserData\_File Class Reference

Collaboration diagram for file\_io.UserData\_File:



## Static Public Member Functions

- static boolean [SetData](#) (String ToAccess, [UserData](#) toTransfer)
- static boolean [SaveData](#) ([UserData](#) toTransfer)

## Static Private Attributes

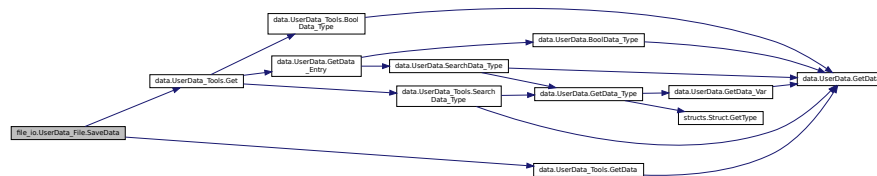
- static String [pathname](#) = "users"
- static File [path](#) = new File([pathname](#))

### 6.64.1 Member Function Documentation

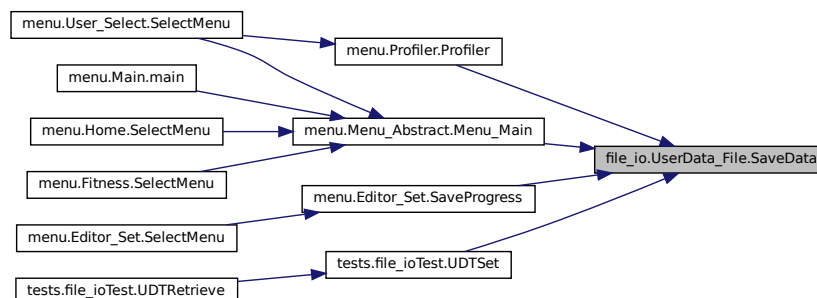
#### 6.64.1.1 SaveData()

```
static boolean file_io.UserData_File.SaveData (
    UserData toTransfer ) [static]
```

Here is the call graph for this function:



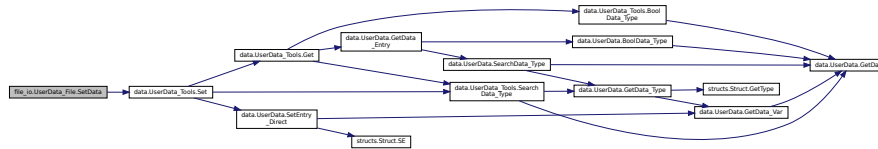
Here is the caller graph for this function:



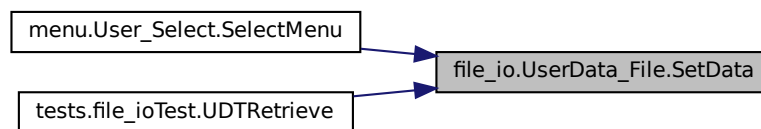
### 6.64.1.2 SetData()

```
static boolean file_io.UserData_File.SetData (
    String ToAccess,
    UserData toTransfer ) [static]
```

Here is the call graph for this function:



Here is the caller graph for this function:



### 6.64.2 Member Data Documentation

### 6.64.2.1 path

```
File file_io.UserData_File.path = new File(pathname) [static], [private]
```

### 6.64.2.2 pathname

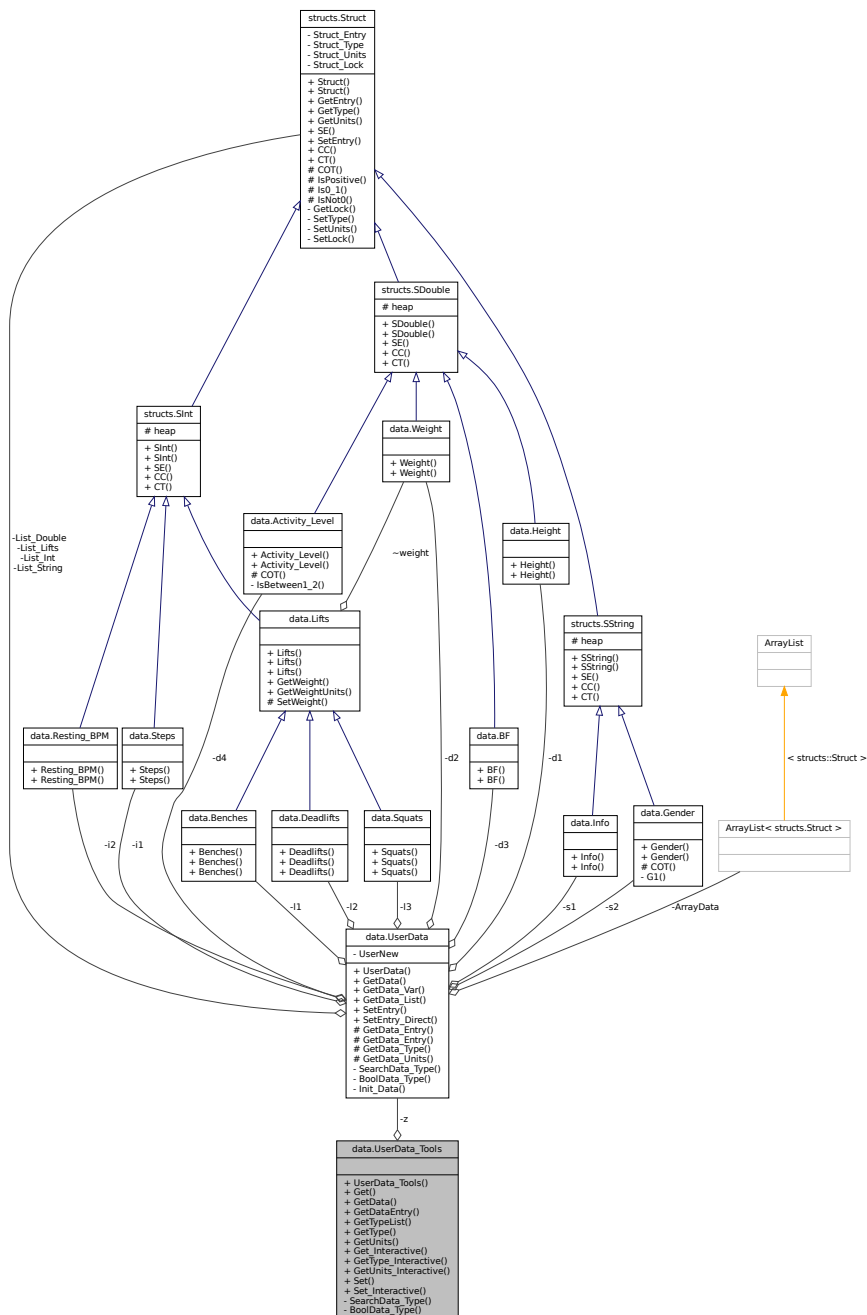
```
String file_io.UserData_File.pathname = "users" [static], [private]
```

The documentation for this class was generated from the following file:

- /home/jamie/java/forms\_project/src/lib/file\_io/UserData\_File.java

## 6.65 data.UserData\_Tools Class Reference

Collaboration diagram for data.UserData\_Tools:



### Public Member Functions

- `UserData_Tools` (`UserData z`)
- Object `Get` (String target)
- `ArrayList< Struct > GetData` ()
- Object `GetDataEntry` (`UserDataIndex` index)



- ArrayList< String > [GetTypeList](#) ()
- String [GetType](#) (String target)
- String [GetUnits](#) (String target)
- Object [Get\\_Interactive](#) (String target)
- String [GetType\\_Interactive](#) (int i)
- String [GetUnits\\_Interactive](#) (String target)
- boolean [Set](#) (String target, Object value)
- boolean [Set\\_Interactive](#) (String target)

### Private Member Functions

- int [SearchData\\_Type](#) (String target)
- boolean [BoolData\\_Type](#) (int i)

### Private Attributes

- [UserData](#) z

## 6.65.1 Constructor & Destructor Documentation

### 6.65.1.1 UserData\_Tools()

```
data.UserData_Tools.UserData_Tools (
    UserData z )
```

## 6.65.2 Member Function Documentation

### 6.65.2.1 BoolData\_Type()

```
boolean data.UserData_Tools.BoolData_Type (
    int i ) [private]
```

Here is the call graph for this function:

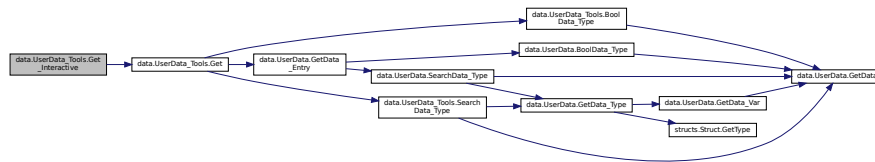




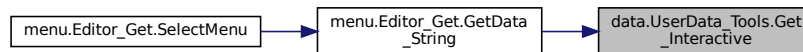
### 6.65.2.3 Get\_Interactive()

Object data.UserData\_Tools.Get\_Interactive (   
 String target )

Here is the call graph for this function:



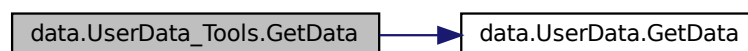
Here is the caller graph for this function:



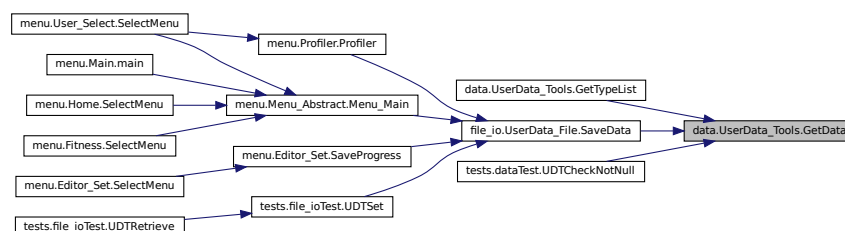
### 6.65.2.4 GetData()

ArrayList<Struct> data.UserData\_Tools.GetData ( )

Here is the call graph for this function:



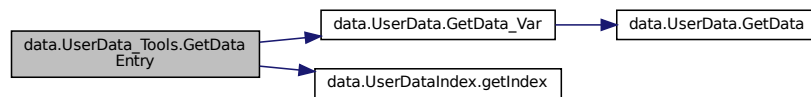
Here is the caller graph for this function:



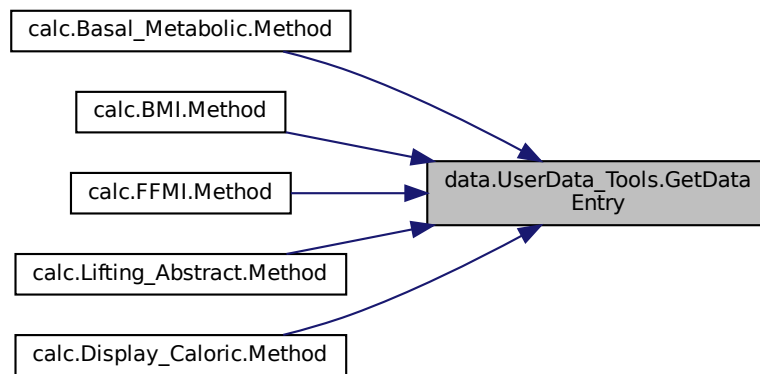
### 6.65.2.5 GetDataEntry()

```
Object data.UserData_Tools.GetDataEntry (
    UserDataIndex index )
```

Here is the call graph for this function:



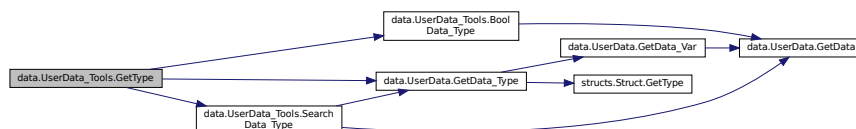
Here is the caller graph for this function:



### 6.65.2.6 GetType()

```
String data.UserData_Tools.GetType (
    String target )
```

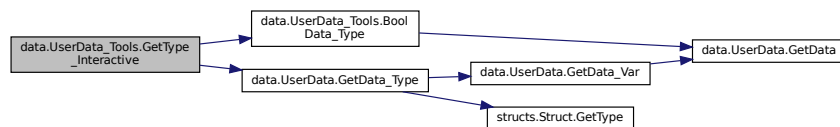
Here is the call graph for this function:



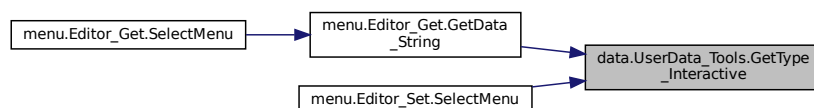
### 6.65.2.7 GetType\_Interactive()

```
String data.UserData_Tools.GetType_Interactive (
    int i )
```

Here is the call graph for this function:



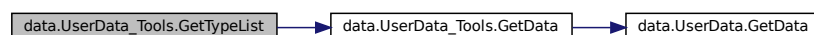
Here is the caller graph for this function:



### 6.65.2.8 GetTypeList()

```
ArrayList<String> data.UserData_Tools.GetTypeList ( )
```

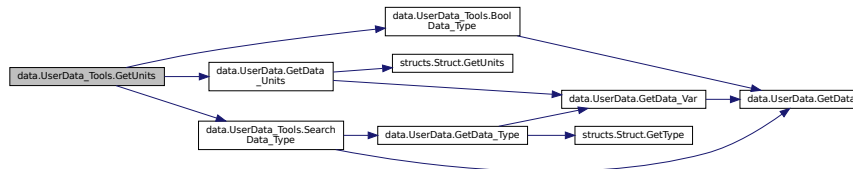
Here is the call graph for this function:



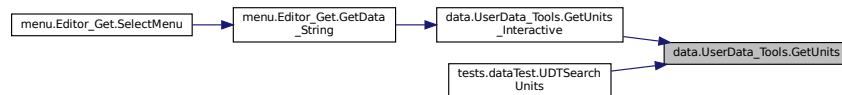
### 6.65.2.9 GetUnits()

```
String data.UserData_Tools.GetUnits (
    String target )
```

Here is the call graph for this function:



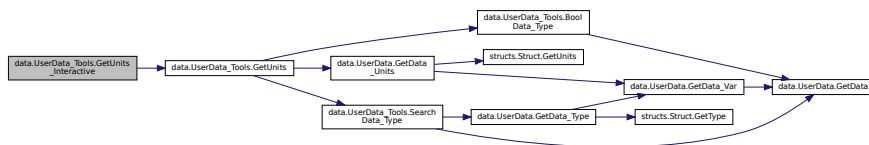
Here is the caller graph for this function:



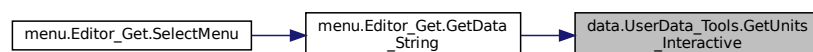
### 6.65.2.10 GetUnits\_Interactive()

```
String data.UserData_Tools.GetUnits_Interactive (
    String target )
```

Here is the call graph for this function:



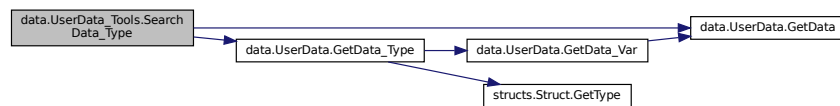
Here is the caller graph for this function:



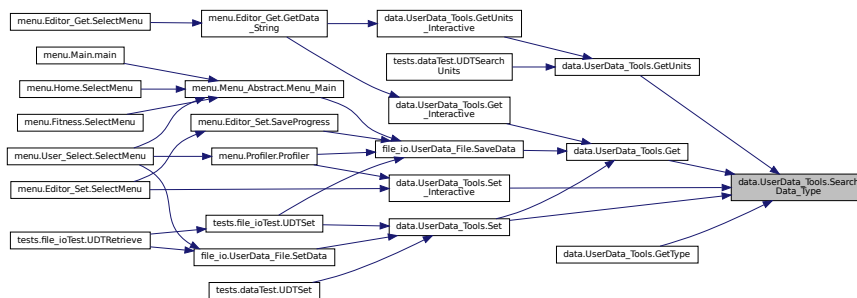
#### 6.65.2.11 SearchData\_Type()

```
int data.UserData_Tools.SearchData_Type (
    String target ) [private]
```

Here is the call graph for this function:



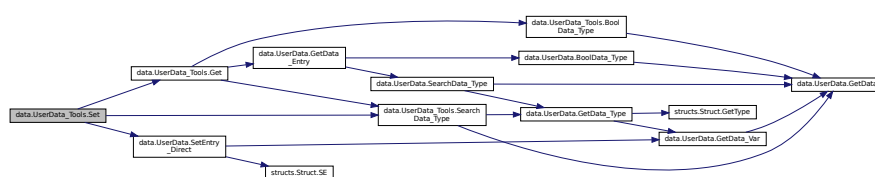
Here is the caller graph for this function:



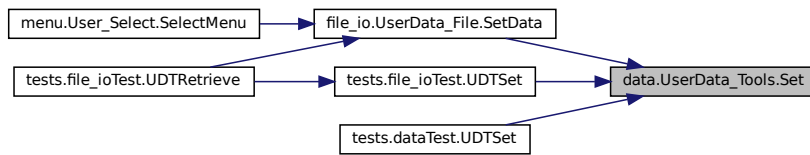
### 6.65.2.12 Set()

```
boolean data.UserData_Tools.Set (
    String target,
    Object value )
```

Here is the call graph for this function:



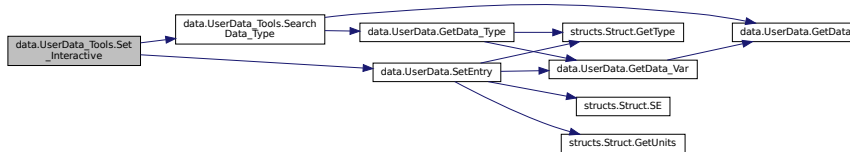
Here is the caller graph for this function:



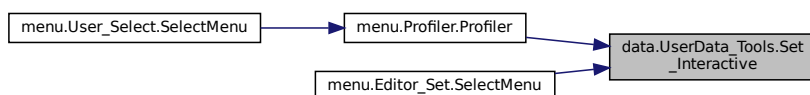
### 6.65.2.13 Set\_Interactive()

```
boolean data.UserData_Tools.Set_Interactive (
    String target )
```

Here is the call graph for this function:



Here is the caller graph for this function:



## 6.65.3 Member Data Documentation

### 6.65.3.1 z

```
UserData data.UserData_Tools.z [private]
```

The documentation for this class was generated from the following file:

- /home/jamie/java/forms\_project/src/lib/data/[UserData\\_Tools.java](#)



## 6.66 data.UserDataIndex Enum Reference

Collaboration diagram for data.UserDataIndex:

data.UserDataIndex
+ STEPS + RESTING_BPM + HEIGHT + WEIGHT + BODY_FAT + ACTIVITY_LEVEL + BENCH + DEADLIFT + SQUAT + INFO + GENDER - index
+ UserDataIndex() + getIndex()

### Public Member Functions

- [UserDataIndex](#) (int [index](#))
- int [getIndex](#) ()

### Public Attributes

- [STEPS](#) =(0)
- [RESTING\\_BPM](#) =(1)
- [HEIGHT](#) =(2)
- [WEIGHT](#) =(3)
- [BODY\\_FAT](#) =(4)
- [ACTIVITY\\_LEVEL](#) =(5)
- [BENCH](#) =(6)
- [DEADLIFT](#) =(7)
- [SQUAT](#) =(8)
- [INFO](#) =(9)
- [GENDER](#) =(10)

### Private Attributes

- final int [index](#)

## 6.66.1 Constructor & Destructor Documentation

### 6.66.1.1 UserDataIndex()

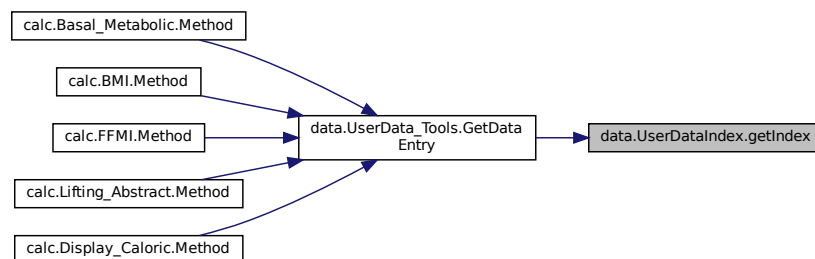
```
data.UserDataIndex.UserDataIndex (
    int index )
```

## 6.66.2 Member Function Documentation

### 6.66.2.1 getIndex()

```
int data.UserDataIndex.getIndex ( )
```

Here is the caller graph for this function:



## 6.66.3 Member Data Documentation

### 6.66.3.1 ACTIVITY\_LEVEL

```
data.UserDataIndex.ACTIVITY_LEVEL = (5)
```

### 6.66.3.2 BENCH

```
data.UserDataIndex.BENCH = (6)
```

### 6.66.3.3 BODY\_FAT

```
data.UserDataIndex.BODY_FAT = (4)
```

### 6.66.3.4 DEADLIFT

```
data.UserDataIndex.DEADLIFT = (7)
```

### 6.66.3.5 GENDER

```
data.UserDataIndex.GENDER = (10)
```

### 6.66.3.6 HEIGHT

```
data.UserDataIndex.HEIGHT = (2)
```

### 6.66.3.7 index

```
final int data.UserDataIndex.index [private]
```

### 6.66.3.8 INFO

```
data.UserDataIndex.INFO = (9)
```

### 6.66.3.9 RESTING\_BPM

```
data.UserDataIndex.RESTING_BPM = (1)
```

### 6.66.3.10 SQUAT

```
data.UserDataIndex.SQUAT = (8)
```

### 6.66.3.11 STEPS

```
data.UserDataIndex.STEPS =(0)
```

### 6.66.3.12 WEIGHT

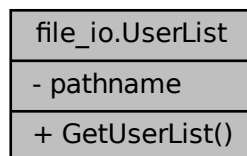
```
data.UserDataIndex.WEIGHT =(3)
```

The documentation for this enum was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/data/UserDataIndex.java](#)

## 6.67 file\_io.UserList Class Reference

Collaboration diagram for file\_io.UserList:



### Static Public Member Functions

- static `ArrayList< String > GetUserList ()`

### Static Private Attributes

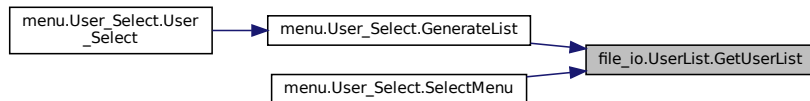
- static `String pathname = "users"`

### 6.67.1 Member Function Documentation

### 6.67.1.1 GetUserList()

```
static ArrayList<String> file_io.UserList.GetUserList ( ) [static]
```

Here is the caller graph for this function:



## 6.67.2 Member Data Documentation

### 6.67.2.1 pathname

```
String file_io.UserList.pathname = "users" [static], [private]
```

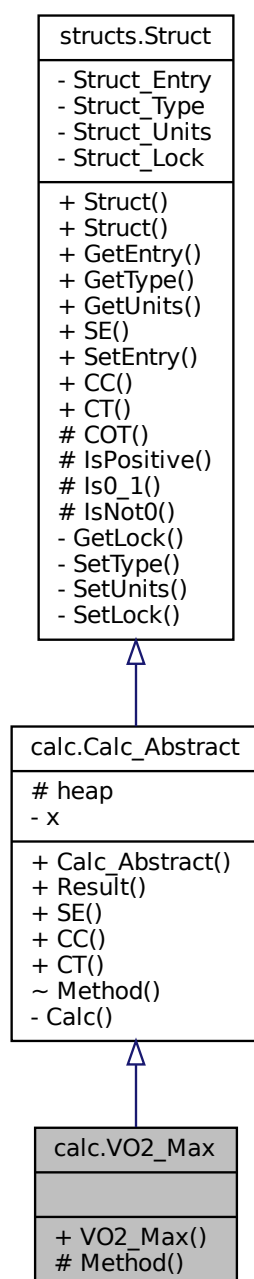
The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/file\\_io/UserList.java](/home/jamie/java/forms_project/src/lib/file_io/UserList.java)

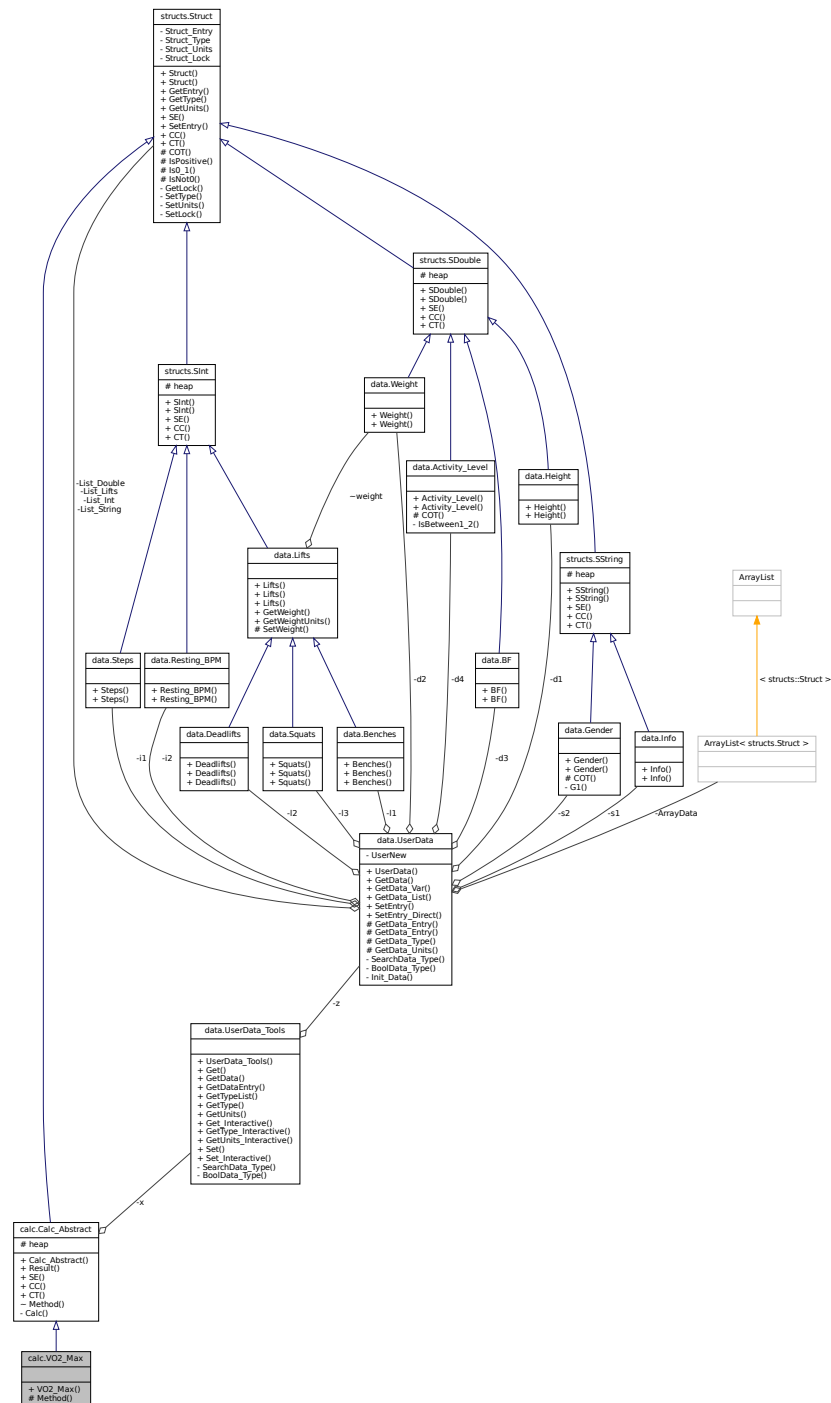
## 6.68 calc.VO2\_Max Class Reference

Calculates and returns VO2 Max values.

Inheritance diagram for calc.VO2\_Max:



Collaboration diagram for calc.VO2\_Max:



## Public Member Functions

- [VO2\\_Max \(UserData z\)](#)

Constructor for the class that uses #UserData.

## Protected Member Functions

- Object [Method](#) ([UserData\\_Tools](#) use)  
*The body of the calculations.*

## Additional Inherited Members

### 6.68.1 Detailed Description

Calculates and returns VO2 Max values.

### 6.68.2 Constructor & Destructor Documentation

#### 6.68.2.1 VO2\_Max()

```
calc.VO2_Max.VO2_Max (
    UserData z )
```

Constructor for the class that uses #UserData.

##### Parameters

z	User's data.
---	--------------

### 6.68.3 Member Function Documentation

#### 6.68.3.1 Method()

```
Object calc.VO2_Max.Method (
    UserData\_Tools use ) [protected]
```

The body of the calculations.

##### Parameters

use	Instance of using the user's values to calculate the value of the class.
-----	--

Reimplemented from [calc.Calc\\_Abstract](#).

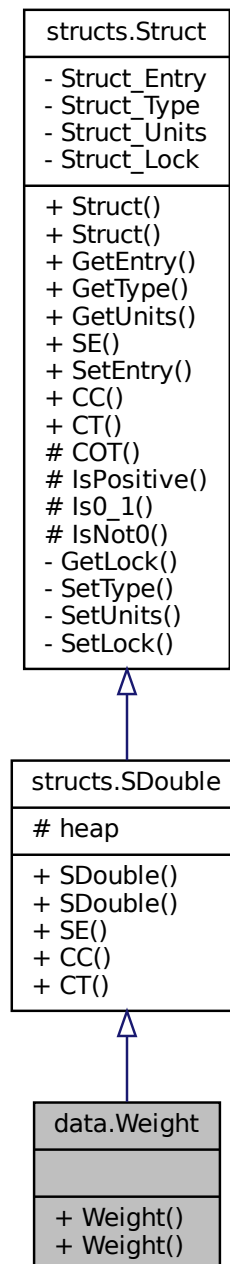
The documentation for this class was generated from the following file:

- /home/jamie/java/forms\_project/src/lib/calc/[VO2\\_Max.java](#)

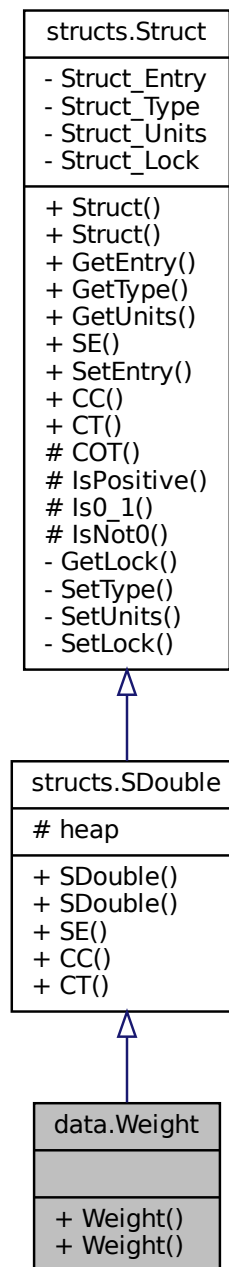


## 6.69 data.Weight Class Reference

Inheritance diagram for data.Weight:



Collaboration diagram for data.Weight:



## Public Member Functions

- [Weight](#) ()
- [Weight](#) (double o)

## Additional Inherited Members

### 6.69.1 Constructor & Destructor Documentation

#### 6.69.1.1 Weight() [1/2]

```
data.Weight.Weight ( )
```

#### 6.69.1.2 Weight() [2/2]

```
data.Weight.Weight (
    double o )
```

The documentation for this class was generated from the following file:

- [/home/jamie/java/forms\\_project/src/lib/data/Weight.java](#)



## Chapter 7

# File Documentation

### 7.1 /home/jamie/java/forms\_project/src/lib/calc/Barbell\_Curl.java File Reference

#### Classes

- class [calc.Barbell\\_Curl](#)

#### Packages

- package [calc](#)

### 7.2 /home/jamie/java/forms\_project/src/lib/calc/Basal\_Metabolic.java File Reference

#### Classes

- class [calc.Basal\\_Metabolic](#)  
*Calculates and returns Basal Metabolic values.*

#### Packages

- package [calc](#)

### 7.3 /home/jamie/java/forms\_project/src/lib/calc/Bench\_Press.java File Reference

#### Classes

- class [calc.Bench\\_Press](#)

## Packages

- package [calc](#)

## 7.4 /home/jamie/java/forms\_project/src/lib/calc/BMI.java File Reference

### Classes

- class [calc.BMI](#)  
*Calculates and returns [BMI](#) values.*

## Packages

- package [calc](#)

## 7.5 /home/jamie/java/forms\_project/src/lib/calc/Calc\_Abstract.java File Reference

### Classes

- class [calc.Calc\\_Abstract](#)  
*Contains abstract methods to calculate and return calculations.*

## Packages

- package [calc](#)

## 7.6 /home/jamie/java/forms\_project/src/lib/calc/Deadlift.java File Reference

### Classes

- class [calc.Deadlift](#)

## Packages

- package [calc](#)

## 7.7 /home/jamie/java/forms\_project/src/lib/calc/Display\_Caloric.java File Reference

### Classes

- class [calc.Display\\_Caloric](#)  
*Calculates and returns Display Caloric values.*

## Packages

- package [calc](#)

## 7.8 /home/jamie/java/forms\_project/src/lib/calc/FFMI.java File Reference

### Classes

- class [calc.FFMI](#)  
*Calculates and returns [FFMI](#) values.*

## Packages

- package [calc](#)

## 7.9 /home/jamie/java/forms\_project/src/lib/calc/Lifting\_Abstract.java File Reference

### Classes

- class [calc.Lifting\\_Abstract](#)  
*Calculates and returns Lifting Stats values.*

## Packages

- package [calc](#)

## 7.10 /home/jamie/java/forms\_project/src/lib/calc/Shoulder\_Press.java File Reference

### Classes

- class [calc.Shoulder\\_Press](#)

## Packages

- package [calc](#)

## 7.11 /home/jamie/java/forms\_project/src/lib/calc/Squat.java File Reference

### Classes

- class [calc.Squat](#)

## Packages

- package [calc](#)

## 7.12 /home/jamie/java/forms\_project/src/lib/calc/UserData\_Calc.java File Reference

### Classes

- class [calc.UserData\\_Calc](#)  
*Class that stores all results of the calculations.*

## Packages

- package [calc](#)

## 7.13 /home/jamie/java/forms\_project/src/lib/calc/VO2\_Max.java File Reference

### Classes

- class [calc.VO2\\_Max](#)  
*Calculates and returns VO2 Max values.*

## Packages

- package [calc](#)

## 7.14 /home/jamie/java/forms\_project/src/lib/data/Activity\_Level.java File Reference

### Classes

- class [data.Activity\\_Level](#)  
*The class that holds [Activity\\_Level](#) data.*

## Packages

- package [data](#)



## 7.15 /home/jamie/java/forms\_project/src/lib/data/Benches.java File Reference

### Classes

- class [data.Benches](#)  
*The class that holds [Benches](#) data.*

### Packages

- package [data](#)

## 7.16 /home/jamie/java/forms\_project/src/lib/data/BF.java File Reference

### Classes

- class [data.BF](#)  
*The class that holds [BF](#) data.*

### Packages

- package [data](#)

## 7.17 /home/jamie/java/forms\_project/src/lib/data/Deadlifts.java File Reference

### Classes

- class [data.Deadlifts](#)  
*The class that holds [Deadlifts](#) data.*

### Packages

- package [data](#)

## 7.18 /home/jamie/java/forms\_project/src/lib/data/Gender.java File Reference

### Classes

- class [data.Gender](#)  
*The class that holds the user's [Gender](#).*

## Packages

- package [data](#)

## 7.19 /home/jamie/java/forms\_project/src/lib/data/Height.java File Reference

### Classes

- class [data.Height](#)  
*The class that holds [Height](#) data.*

## Packages

- package [data](#)

## 7.20 /home/jamie/java/forms\_project/src/lib/data/Info.java File Reference

### Classes

- class [data.Info](#)  
*The class that holds the user's [Info](#).*

## Packages

- package [data](#)

## 7.21 /home/jamie/java/forms\_project/src/lib/data/Lifts.java File Reference

### Classes

- class [data.Lifts](#)  
*The abstract class that defines the lifts, using also the [Weight](#) class as an object.*

## Packages

- package [data](#)

## 7.22 /home/jamie/java/forms\_project/src/lib/data/Resting\_BPM.java File Reference

### Classes

- class [data.Resting\\_BPM](#)

## Packages

- package [data](#)

## 7.23 /home/jamie/java/forms\_project/src/lib/data/Squats.java File Reference

### Classes

- class [data.Squats](#)

## Packages

- package [data](#)

## 7.24 /home/jamie/java/forms\_project/src/lib/data/Steps.java File Reference

### Classes

- class [data.Steps](#)

## Packages

- package [data](#)

## 7.25 /home/jamie/java/forms\_project/src/lib/data/UserData.java File Reference

### Classes

- class [data.UserData](#)

## Packages

- package [data](#)

## 7.26 /home/jamie/java/forms\_project/src/lib/data/UserData\_Tools.java File Reference

### Classes

- class [data.UserData\\_Tools](#)

## Packages

- package [data](#)

## 7.27 /home/jamie/java/forms\_project/src/lib/data/UserDataIndex.java File Reference

### Classes

- enum [data.UserDataIndex](#)

## Packages

- package [data](#)

## 7.28 /home/jamie/java/forms\_project/src/lib/data/Weight.java File Reference

### Classes

- class [data.Weight](#)

## Packages

- package [data](#)

## 7.29 /home/jamie/java/forms\_project/src/lib/file\_io/UserData\_File.java File Reference

### Classes

- class [file\\_io.UserData\\_File](#)

## Packages

- package [file\\_io](#)

## 7.30 /home/jamie/java/forms\_project/src/lib/file\_io/UserList.java File Reference

### Classes

- class [file\\_io.UserList](#)

## Packages

- package [file\\_io](#)

## 7.31 /home/jamie/java/forms\_project/src/lib/gui/driver/FormProjectDriver.java File Reference

### Classes

- class [driver.FormProjectDriver](#)

## Packages

- package [driver](#)

## 7.32 /home/jamie/java/forms\_project/src/lib/gui/gui/BaseScene.java File Reference

### Classes

- class [gui.BaseScene](#)

## Packages

- package [gui](#)

## 7.33 /home/jamie/java/forms\_project/src/lib/gui/gui/EighthScene.java File Reference

### Classes

- class [gui.EighthScene](#)

## Packages

- package [gui](#)

## 7.34 /home/jamie/java/forms\_project/src/lib/gui/gui/FifthScene.java File Reference

### Classes

- class [gui.FifthScene](#)

## Packages

- package [gui](#)

## 7.35 /home/jamie/java/forms\_project/src/lib/gui/gui/FirstScene.java File Reference

### Classes

- class [gui.FirstScene](#)

## Packages

- package [gui](#)

## 7.36 /home/jamie/java/forms\_project/src/lib/gui/gui/FourthScene.java File Reference

### Classes

- class [gui.FourthScene](#)

## Packages

- package [gui](#)

## 7.37 /home/jamie/java/forms\_project/src/lib/gui/gui/SecondScene.java File Reference

### Classes

- class [gui.SecondScene](#)

## Packages

- package [gui](#)

## 7.38 /home/jamie/java/forms\_project/src/lib/gui/gui/SeventhScene.java File Reference

### Classes

- class [gui.SeventhScene](#)

## Packages

- package [gui](#)

## 7.39 /home/jamie/java/forms\_project/src/lib/gui/gui/SixthScene.java File Reference

### Classes

- class [gui.SixthScene](#)

## Packages

- package [gui](#)

## 7.40 /home/jamie/java/forms\_project/src/lib/gui/gui/ThirdScene.java File Reference

### Classes

- class [gui.ThirdScene](#)

## Packages

- package [gui](#)

## 7.41 /home/jamie/java/forms\_project/src/lib/gui/handlers/BtnBack1Handler.java File Reference ↩

### Classes

- class [handlers.BtnBack1Handler](#)

## Packages

- package [handlers](#)

## 7.42 [/home/jamie/java/forms\\_project/src/lib/gui/handlers/BtnBackHandler.java File Reference](#)

### Classes

- class [handlers.BtnBackHandler](#)

### Packages

- package [handlers](#)

## 7.43 [/home/jamie/java/forms\\_project/src/lib/gui/handlers/BtnLoginHandler.java File Reference](#)

### Classes

- class [handlers.BtnLoginHandler](#)

### Packages

- package [handlers](#)

## 7.44 [/home/jamie/java/forms\\_project/src/lib/gui/handlers/BtnNewUserHandler.java File Reference](#)

### Classes

- class [handlers.BtnNewUserHandler](#)

### Packages

- package [handlers](#)

## 7.45 [/home/jamie/java/forms\\_project/src/lib/gui/handlers/BtnQuitHandler.java File Reference](#)

### Classes

- class [handlers.BtnQuitHandler](#)



## Packages

- package [handlers](#)

## 7.46 /home/jamie/java/forms\_project/src/lib/gui/handlers/BtnStartHandler.java File Reference

### Classes

- class [handlers.BtnStartHandler](#)

## Packages

- package [handlers](#)

## 7.47 /home/jamie/java/forms\_project/src/lib/gui/handlers/BtnTLiftHandler.java File Reference

### Classes

- class [handlers.BtnTLiftHandler](#)

## Packages

- package [handlers](#)

## 7.48 /home/jamie/java/forms\_project/src/lib/gui/handlers/BtnTrackHandler.java File Reference

### Classes

- class [handlers.BtnTrackHandler](#)

## Packages

- package [handlers](#)

## 7.49 [/home/jamie/java/forms\\_project/src/lib/gui/handlers/BtnTWeightHandler.java File Reference](#)

### Classes

- class [handlers.BtnTWeightHandler](#)

### Packages

- package [handlers](#)

## 7.50 [/home/jamie/java/forms\\_project/src/lib/gui/handlers/BtnUpdateHandler.java File Reference](#)

### Classes

- class [handlers.BtnUpdateHandler](#)

### Packages

- package [handlers](#)

## 7.51 [/home/jamie/java/forms\\_project/src/lib/gui/handlers/BtnViewHandler.java File Reference](#)

### Classes

- class [handlers.BtnViewHandler](#)

### Packages

- package [handlers](#)

## 7.52 [/home/jamie/java/forms\\_project/src/lib/menu/Editor.java File Reference](#)

### Classes

- class [menu.Editor](#)

*The main menu for choosing either to get values or set values in the main program.*

## Packages

- package [menu](#)

## 7.53 /home/jamie/java/forms\_project/src/lib/menu/Editor\_Abstract.java File Reference

### Classes

- class [menu.Editor\\_Abstract](#)

*This class extends the abstract class [Menu\\_Abstract](#), which provides the structure for editing and viewing the #↔ UserData.*

## Packages

- package [menu](#)

## 7.54 /home/jamie/java/forms\_project/src/lib/menu/Editor\_Get.java File Reference

### Classes

- class [menu.Editor\\_Get](#)

*Class that provides a User Interface to [Editor\\_Abstract](#), specifically to get values.*

## Packages

- package [menu](#)

## 7.55 /home/jamie/java/forms\_project/src/lib/menu/Editor\_Set.java File Reference

### Classes

- class [menu.Editor\\_Set](#)

*Class that creates a Menu user interface to edit any #UserData values.*

## Packages

- package [menu](#)

## 7.56 /home/jamie/java/forms\_project/src/lib/menu/Fitness.java File Reference

### Classes

- class [menu.Fitness](#)  
*The Menu Interface for the [Fitness](#) class.*

### Packages

- package [menu](#)

## 7.57 /home/jamie/java/forms\_project/src/lib/menu/Home.java File Reference

### Classes

- class [menu.Home](#)  
*The [Home](#) Menu interface.*

### Packages

- package [menu](#)

## 7.58 /home/jamie/java/forms\_project/src/lib/menu/Lifting\_Stats.java File Reference

### Classes

- class [menu.Lifting\\_Stats](#)

### Packages

- package [menu](#)

## 7.59 /home/jamie/java/forms\_project/src/lib/menu/Main.java File Reference

### Classes

- class [menu.Main](#)  
*The main class that runs the TUI.*

## Packages

- package [menu](#)

## 7.60 /home/jamie/java/forms\_project/src/lib/menu/Menu\_Abstract.java File Reference

### Classes

- class [menu.Menu\\_Abstract](#)

*The template class that provides the skeleton menu interface.*

## Packages

- package [menu](#)

## 7.61 /home/jamie/java/forms\_project/src/lib/menu/Menu\_Entry.java File Reference

### Classes

- class [menu.Menu\\_Entry](#)

*Class that provides the entry data structure.*

## Packages

- package [menu](#)

## 7.62 /home/jamie/java/forms\_project/src/lib/menu/Profiler.java File Reference

### Classes

- class [menu.Profiler](#)

## Packages

- package [menu](#)

## 7.63 /home/jamie/java/forms\_project/src/lib/menu/User\_Select.java File Reference

### Classes

- class [menu.User\\_Select](#)

### Packages

- package [menu](#)

## 7.64 /home/jamie/java/forms\_project/src/lib/structs/SDouble.java File Reference

### Classes

- class [structs.SDouble](#)  
*The class that holds Double-typed data.*

### Packages

- package [structs](#)

## 7.65 /home/jamie/java/forms\_project/src/lib/structs/SInt.java File Reference

### Classes

- class [structs.SInt](#)  
*The class that holds Integer-typed data.*

### Packages

- package [structs](#)

## 7.66 /home/jamie/java/forms\_project/src/lib/structs/SString.java File Reference

### Classes

- class [structs.SString](#)  
*The class that holds String-typed data.*

## Packages

- package [structs](#)

## 7.67 /home/jamie/java/forms\_project/src/lib/structs/Struct.java File Reference

### Classes

- class [structs.Struct](#)  
*Provides the foundational DataType and primitive methods for all various inputs.*

## Packages

- package [structs](#)

## 7.68 /home/jamie/java/forms\_project/src/lib/tests/dataTest.java File Reference

### Classes

- class [tests.dataTest](#)

## Packages

- package [tests](#)

## 7.69 /home/jamie/java/forms\_project/src/lib/tests/file\_ioTest.java File Reference

### Classes

- class [tests.file\\_ioTest](#)

## Packages

- package [tests](#)





# Index

/home/jamie/java/forms\_project/src/lib/calc/BMI.java, 290  
/home/jamie/java/forms\_project/src/lib/calc/Barbell\_Curl.java, 289  
/home/jamie/java/forms\_project/src/lib/calc/Basal\_Metabolic\_Rate.java, 289  
/home/jamie/java/forms\_project/src/lib/calc/Bench\_Press.java, 289  
/home/jamie/java/forms\_project/src/lib/calc/Calc\_Abstract.java, 290  
/home/jamie/java/forms\_project/src/lib/calc/Deadlift.java, 290  
/home/jamie/java/forms\_project/src/lib/calc/Display\_Calories.java, 290  
/home/jamie/java/forms\_project/src/lib/calc/FFMI.java, 291  
/home/jamie/java/forms\_project/src/lib/calc/Lifting\_Abstract.java, 291  
/home/jamie/java/forms\_project/src/lib/calc/Shoulder\_Press.java, 291  
/home/jamie/java/forms\_project/src/lib/calc/Squat.java, 291  
/home/jamie/java/forms\_project/src/lib/calc/UserData\_Calc.java, 292  
/home/jamie/java/forms\_project/src/lib/calc/VO2\_Max.java, 292  
/home/jamie/java/forms\_project/src/lib/data/Activity\_Level.java, 292  
/home/jamie/java/forms\_project/src/lib/data/BF.java, 293  
/home/jamie/java/forms\_project/src/lib/data/Benchmarks.java, 293  
/home/jamie/java/forms\_project/src/lib/data/Deadlifts.java, 293  
/home/jamie/java/forms\_project/src/lib/data/Gender.java, 293  
/home/jamie/java/forms\_project/src/lib/data/Height.java, 294  
/home/jamie/java/forms\_project/src/lib/data/Info.java, 294  
/home/jamie/java/forms\_project/src/lib/data/Lifts.java, 294  
/home/jamie/java/forms\_project/src/lib/data/Resting\_BPM.java, 294  
/home/jamie/java/forms\_project/src/lib/data/Squats.java, 295  
/home/jamie/java/forms\_project/src/lib/data/Steps.java, 295  
/home/jamie/java/forms\_project/src/lib/data/UserData.java, 295  
/home/jamie/java/forms\_project/src/lib/data/UserDataIndex.java, 296  
/home/jamie/java/forms\_project/src/lib/data/UserData\_Tools.java, 295  
/home/jamie/java/forms\_project/src/lib/data/Weight.java, 296  
/home/jamie/java/forms\_project/src/lib/file\_io/UserData\_File.java, 296  
/home/jamie/java/forms\_project/src/lib/file\_io/UserList.java, 296  
/home/jamie/java/forms\_project/src/lib/gui/driver/FormProjectDriver.java, 297  
/home/jamie/java/forms\_project/src/lib/gui/gui/BaseScene.java, 297  
/home/jamie/java/forms\_project/src/lib/gui/gui/EighthScene.java, 297  
/home/jamie/java/forms\_project/src/lib/gui/gui/FifthScene.java, 297  
/home/jamie/java/forms\_project/src/lib/gui/gui/FirstScene.java, 298  
/home/jamie/java/forms\_project/src/lib/gui/gui/FourthScene.java, 298  
/home/jamie/java/forms\_project/src/lib/gui/gui/SecondScene.java, 298  
/home/jamie/java/forms\_project/src/lib/gui/gui/SeventhScene.java, 298  
/home/jamie/java/forms\_project/src/lib/gui/gui/SixthScene.java, 299  
/home/jamie/java/forms\_project/src/lib/gui/gui/ThirdScene.java, 299  
/home/jamie/java/forms\_project/src/lib/gui/handlers/BtnBack1Handler.java, 299  
/home/jamie/java/forms\_project/src/lib/gui/handlers/BtnBackHandler.java, 300  
/home/jamie/java/forms\_project/src/lib/gui/handlers/BtnLoginHandler.java, 300  
/home/jamie/java/forms\_project/src/lib/gui/handlers/BtnNewUserHandler.java, 300  
/home/jamie/java/forms\_project/src/lib/gui/handlers/BtnQuitHandler.java, 300  
/home/jamie/java/forms\_project/src/lib/gui/handlers/BtnStartHandler.java, 301  
/home/jamie/java/forms\_project/src/lib/gui/handlers/BtnTLiftHandler.java, 301  
/home/jamie/java/forms\_project/src/lib/gui/handlers/BtnTWeightHandler.java, 302  
/home/jamie/java/forms\_project/src/lib/gui/handlers/BtnTrackHandler.java, 301  
/home/jamie/java/forms\_project/src/lib/gui/handlers/BtnUpdateHandler.java, 301

[302](#)  
 /home/jamie/java/forms\_project/src/lib/gui/handlers/BtnViewHandler.java, [302](#)  
 /home/jamie/java/forms\_project/src/lib/menu/Editor.java, [302](#)  
 /home/jamie/java/forms\_project/src/lib/menu/Editor\_Abstract.java, [303](#)  
 /home/jamie/java/forms\_project/src/lib/menu/Editor\_Get.java, [303](#)  
 /home/jamie/java/forms\_project/src/lib/menu/Editor\_Set.java, [303](#)  
 /home/jamie/java/forms\_project/src/lib/menu/Fitness.java, [304](#)  
 /home/jamie/java/forms\_project/src/lib/menu/Home.java, [304](#)  
 /home/jamie/java/forms\_project/src/lib/menu/Lifting\_Stats.java, [304](#)  
 /home/jamie/java/forms\_project/src/lib/menu/Main.java, [304](#)  
 /home/jamie/java/forms\_project/src/lib/menu/Menu\_Abstract.java, [305](#)  
 /home/jamie/java/forms\_project/src/lib/menu/Menu\_Entry.java, [305](#)  
 /home/jamie/java/forms\_project/src/lib/menu/Profiler.java, [305](#)  
 /home/jamie/java/forms\_project/src/lib/menu/User\_Select.java, [306](#)  
 /home/jamie/java/forms\_project/src/lib/structs/SDouble.java, [306](#)  
 /home/jamie/java/forms\_project/src/lib/structs/SInt.java, [306](#)  
 /home/jamie/java/forms\_project/src/lib/structs/SString.java, [306](#)  
 /home/jamie/java/forms\_project/src/lib/structs/Struct.java, [307](#)  
 /home/jamie/java/forms\_project/src/lib/tests/dataTest.java, [307](#)  
 /home/jamie/java/forms\_project/src/lib/tests/file\_ioTest.java, [307](#)  
  
 ACTIVITY\_LEVEL  
     data.UserDataIndex, [278](#)  
 Activity\_Level  
     data.Activity\_Level, [18](#)  
 AddMenu\_Entry  
     menu.Menu\_Abstract, [174](#)  
 ArrayCalc  
     calc.UserData\_Calc, [263](#)  
 ArrayData  
     data.UserData, [253](#)  
  
 Barbell\_Curl  
     calc.Barbell\_Curl, [22](#)  
 BarbellCurl  
     menu.Lifting\_Stats, [164](#)  
 Basal\_Metabolic  
     calc.Basal\_Metabolic, [25](#)  
     menu.Fitness, [132](#)  
 BaseScene  
     gui.BaseScene, [28](#)  
     handlers.BtnBack1Handler, [45](#)  
     handlers.BtnBackHandler, [48](#)  
     handlers.BtnLoginHandler, [51](#)  
     handlers.BtnNewUserHandler, [54](#)  
     handlers.BtnStartHandler, [58](#)  
     handlers.BtnTLiftHandler, [61](#)  
     handlers.BtnTrackHandler, [64](#)  
     handlers.BtnTWeightHandler, [67](#)  
     handlers.BtnUpdateHandler, [70](#)  
     handlers.BtnViewHandler, [73](#)  
  
 Calc  
     calc.Calc\_Abstract, [77](#)  
 calc, [11](#)  
     calc.Barbell\_Curl, [20](#)  
         Barbell\_Curl, [22](#)  
         FemaleStandard, [22](#)  
         MaleStandard, [22](#)  
     calc.Basal\_Metabolic, [23](#)  
         Basal\_Metabolic, [25](#)  
         Method, [25](#)  
     calc.Bench\_Press, [31](#)  
         Bench\_Press, [33](#)

- FemaleStandard, [33](#)
- MaleStandard, [33](#)
- calc.BMI, [39](#)
  - BMI, [42](#)
  - Method, [42](#)
- calc.Calc\_Abstract, [74](#)
  - Calc, [77](#)
  - Calc\_Abstract, [76](#)
  - CC, [77](#)
  - CT, [78](#)
  - heap, [81](#)
  - Method, [78](#)
  - Result, [79](#)
  - SE, [80](#)
  - x, [81](#)
- calc.Deadlift, [89](#)
  - Deadlift, [91](#)
  - FemaleStandard, [91](#)
  - MaleStandard, [91](#)
- calc.Display\_Caloric, [95](#)
  - Display\_Caloric, [97](#)
  - Method, [97](#)
- calc.FFMI, [117](#)
  - FFMI, [119](#)
  - Method, [119](#)
- calc.Lifting\_Abstract, [154](#)
  - FemaleStandard, [157](#)
  - gender, [160](#)
  - Lifting\_Abstract, [157](#)
  - MaleStandard, [158](#)
  - Method, [158](#)
  - rep\_weight, [160](#)
  - weight, [160](#)
  - WeightMessage, [159](#)
- calc.Shoulder\_Press, [200](#)
  - FemaleStandard, [202](#)
  - MaleStandard, [202](#)
  - Shoulder\_Press, [202](#)
- calc.Squat, [211](#)
  - FemaleStandard, [213](#)
  - MaleStandard, [213](#)
  - Squat, [213](#)
- calc.UserData\_Calc, [255](#)
  - ArrayCalc, [263](#)
  - BC, [263](#)
  - BM, [263](#)
  - BMI, [264](#)
  - BP, [264](#)
  - DC, [264](#)
  - DL, [264](#)
  - FFMI, [264](#)
  - GetBC, [258](#)
  - GetBM, [258](#)
  - GetBMI, [259](#)
  - GetBP, [259](#)
  - GetDC, [260](#)
  - GetDL, [260](#)
  - GetFFMI, [261](#)
  - GetSP, [261](#)
  - GetSQ, [262](#)
  - GetVO2\_Max, [262](#)
  - Init\_Data, [263](#)
  - List\_Calc, [264](#)
  - SP, [265](#)
  - SQ, [265](#)
  - UserData\_Calc, [257](#)
  - VO2\_Max, [265](#)
- calc.VO2\_Max, [281](#)
  - Method, [284](#)
  - VO2\_Max, [284](#)
- Calc\_Abstract
  - calc.Calc\_Abstract, [76](#)
- CC
  - calc.Calc\_Abstract, [77](#)
  - structs.SDouble, [191](#)
  - structs.SInt, [206](#)
  - structs.SString, [220](#)
  - structs.Struct, [229](#)
- CheckInvalidSE
  - tests.dataTest, [83](#)
- CheckNegativeSE
  - tests.dataTest, [83](#)
- CheckNull
  - tests.dataTest, [84](#)
- CheckSE
  - tests.dataTest, [84](#)
- CheckType
  - tests.dataTest, [84](#)
- CheckUnits
  - tests.dataTest, [85](#)
- CleanUp
  - tests.file\_ioTest, [124](#)
- ClearScreen
  - menu.Menu\_Abstract, [174](#)
- COT
  - data.Activity\_Level, [18](#)
  - data.Gender, [143](#)
  - structs.Struct, [229](#)
- CT
  - calc.Calc\_Abstract, [78](#)
  - structs.SDouble, [191](#)
  - structs.SInt, [206](#)
  - structs.SString, [220](#)
  - structs.Struct, [230](#)
- d1
  - data.UserData, [253](#)
- d2
  - data.UserData, [253](#)
- d3
  - data.UserData, [253](#)
- d4
  - data.UserData, [253](#)
- data, [11](#)
  - data.Activity\_Level, [15](#)
  - Activity\_Level, [18](#)
  - COT, [18](#)

- IsBetween1\_2, 19
- data.Benches, 34
  - Benches, 36
- data.BF, 37
  - BF, 39
- data.Deadlifts, 92
  - Deadlifts, 94
- data.Gender, 141
  - COT, 143
  - G1, 144
  - Gender, 143
- data.Height, 145
  - Height, 147
- data.Info, 152
  - Info, 154
- data.Lifts, 165
  - GetWeight, 168
  - GetWeightUnits, 168
  - Lifts, 167, 168
  - SetWeight, 169
  - weight, 169
- data.Resting\_BPM, 185
  - Resting\_BPM, 187
- data.Squats, 214
  - Squats, 216
- data.Steps, 223
  - Steps, 225
- data.UserData, 245
  - ArrayData, 253
  - BoolData\_Type, 246
  - d1, 253
  - d2, 253
  - d3, 253
  - d4, 253
  - GetData, 247
  - GetData\_Entry, 247, 248
  - GetData\_List, 248
  - GetData\_Type, 249
  - GetData\_Units, 249
  - GetData\_Var, 250
  - i1, 253
  - i2, 253
  - Init\_Data, 251
  - I1, 253
  - I2, 254
  - I3, 254
  - List\_Double, 254
  - List\_Int, 254
  - List\_Lifts, 254
  - List\_String, 254
  - s1, 254
  - s2, 254
  - SearchData\_Type, 251
  - SetEntry, 251
  - SetEntry\_Direct, 252
  - UserData, 246
  - UserNew, 255
- data.UserData\_Tools, 268
  - BoolData\_Type, 269
  - Get, 270
  - Get\_Interactive, 270
  - GetData, 271
  - GetDataEntry, 271
  - GetType, 272
  - GetType\_Interactive, 272
  - GetTypeList, 273
  - GetUnits, 273
  - GetUnits\_Interactive, 274
  - SearchData\_Type, 274
  - Set, 275
  - Set\_Interactive, 276
  - UserData\_Tools, 269
  - z, 276
- data.UserDataIndex, 277
  - ACTIVITY\_LEVEL, 278
  - BENCH, 278
  - BODY\_FAT, 278
  - DEADLIFT, 279
  - GENDER, 279
  - getIndex, 278
  - HEIGHT, 279
  - index, 279
  - INFO, 279
  - RESTING\_BPM, 279
  - SQUAT, 279
  - STEPS, 279
  - UserDataIndex, 278
  - WEIGHT, 280
- data.Weight, 285
  - Weight, 287
- DC
  - calc.UserData\_Calc, 264
- DEADLIFT
  - data.UserDataIndex, 279
- Deadlift
  - calc.Deadlift, 91
  - menu.Lifting\_Stats, 164
- Deadlifts
  - data.Deadlifts, 94
- delta
  - tests.dataTest, 88
- display
  - gui.BaseScene, 28
- Display\_Caloric
  - calc.Display\_Caloric, 97
  - menu.Fitness, 132
- DL
  - calc.UserData\_Calc, 264
- driver, 12
  - gui.BaseScene, 30
  - handlers.BtnBack1Handler, 45
  - handlers.BtnBackHandler, 48
  - handlers.BtnLoginHandler, 51
  - handlers.BtnNewUserHandler, 54
  - handlers.BtnStartHandler, 58
  - handlers.BtnTLiftHandler, 61

- handlers.BtnTrackHandler, 64
- handlers.BtnTWeightHandler, 67
- handlers.BtnUpdateHandler, 70
- handlers.BtnViewHandler, 73
- driver.FormProjectDriver, 134
  - getUserdata, 136
  - getUserdataCalc, 136
  - main, 136
  - setScene, 136
  - stage, 137
  - start, 137
  - userdata, 137
  - userdataCalc, 137
- Editor
  - menu.Editor, 100
  - menu.Fitness, 133
- Editor\_Abstract
  - menu.Editor\_Abstract, 104
- Editor\_Get
  - menu.Editor\_Get, 108
- Editor\_Set
  - menu.Editor\_Set, 112
- EighthScene
  - gui.EighthScene, 116
- Entry
  - menu.Menu\_Entry, 183
- FemaleStandard
  - calc.Barbell\_Curl, 22
  - calc.Bench\_Press, 33
  - calc.Deadlift, 91
  - calc.Lifting\_Abstract, 157
  - calc.Shoulder\_Press, 202
  - calc.Squat, 213
- FFMI
  - calc.FFMI, 119
  - calc.UserData\_Calc, 264
  - menu.Fitness, 133
- FifthScene
  - gui.FifthScene, 122
- file\_io, 12
- file\_io.UserData\_File, 265
  - path, 267
  - pathname, 267
  - SaveData, 266
  - SetData, 266
- file\_io.UserList, 280
  - GetUserList, 280
  - pathname, 281
- FirstScene
  - gui.FirstScene, 128
- Fitness
  - menu.Fitness, 131
- FourthScene
  - gui.FourthScene, 140
- G
  - tests.dataTest, 88
- G1
  - data.Gender, 144
- GCheckGet
  - tests.dataTest, 85
- GCheckSE
  - tests.dataTest, 85
- GENDER
  - data.UserDataIndex, 279
- Gender
  - data.Gender, 143
- gender
  - calc.Lifting\_Abstract, 160
- GenerateList
  - menu.User\_Select, 243
- Get
  - data.UserData\_Tools, 270
- Get\_Data
  - menu.Editor, 101
- Get\_Interactive
  - data.UserData\_Tools, 270
- GetBC
  - calc.UserData\_Calc, 258
- GetBM
  - calc.UserData\_Calc, 258
- GetBMI
  - calc.UserData\_Calc, 259
- GetBP
  - calc.UserData\_Calc, 259
- GetData
  - data.UserData, 247
  - data.UserData\_Tools, 271
- GetData\_Entry
  - data.UserData, 247, 248
- GetData\_List
  - data.UserData, 248
- GetData\_String
  - menu.Editor\_Get, 108
- GetData\_Type
  - data.UserData, 249
- GetData\_Units
  - data.UserData, 249
- GetData\_Var
  - data.UserData, 250
- GetDataEntry
  - data.UserData\_Tools, 271
- GetDC
  - calc.UserData\_Calc, 260
- GetDL
  - calc.UserData\_Calc, 260
- getDriver
  - gui.BaseScene, 28
- GetEntry
  - structs.Struct, 230
- GetFFMI
  - calc.UserData\_Calc, 261
- getIndex
  - data.UserDataIndex, 278
- GetLock

- structs.Struct, 231
- GetMenu\_Entry
  - menu.Menu\_Abstract, 175
  - menu.Menu\_Entry, 183
- GetMenu\_List
  - menu.Menu\_Abstract, 175
- GetMenu\_Title
  - menu.Menu\_Abstract, 176
- getScene
  - gui.BaseScene, 29
- GetSP
  - calc.UserData\_Calc, 261
- GetSQ
  - calc.UserData\_Calc, 262
- GetType
  - data.UserData\_Tools, 272
  - structs.Struct, 231
- GetType\_Interactive
  - data.UserData\_Tools, 272
- GetTypeList
  - data.UserData\_Tools, 273
- GetUnits
  - data.UserData\_Tools, 273
  - structs.Struct, 232
- GetUnits\_Interactive
  - data.UserData\_Tools, 274
- getUserdata
  - driver.FormProjectDriver, 136
- getUserdataCalc
  - driver.FormProjectDriver, 136
- getUserList
  - file\_io.UserList, 280
- GetVO2\_Max
  - calc.UserData\_Calc, 262
- GetWeight
  - data.Lifts, 168
- GetWeightUnits
  - data.Lifts, 168
- gui, 12
- gui.BaseScene, 26
  - BaseScene, 28
  - display, 28
  - driver, 30
  - getDriver, 28
  - getScene, 29
  - scene, 30
  - setScene, 29
  - setup, 30
- gui.EighthScene, 114
  - EighthScene, 116
  - setup, 116
- gui.FifthScene, 120
  - FifthScene, 122
  - setup, 122
- gui.FirstScene, 126
  - FirstScene, 128
  - setup, 128
- gui.FourthScene, 138
  - FourthScene, 140
  - setup, 140
- gui.SecondScene, 194
  - SecondScene, 196
  - setup, 196
- gui.SeventhScene, 197
  - setup, 199
  - SeventhScene, 199
- gui.SixthScene, 208
  - setup, 210
  - SixthScene, 210
- gui.ThirdScene, 238
  - setup, 240
  - ThirdScene, 240
- handle
  - handlers.BtnBack1Handler, 45
  - handlers.BtnBackHandler, 48
  - handlers.BtnLoginHandler, 51
  - handlers.BtnNewUserHandler, 54
  - handlers.BtnQuitHandler, 56
  - handlers.BtnStartHandler, 58
  - handlers.BtnTLiftHandler, 61
  - handlers.BtnTrackHandler, 64
  - handlers.BtnTWeightHandler, 67
  - handlers.BtnUpdateHandler, 70
  - handlers.BtnViewHandler, 73
- handlers, 13
- handlers.BtnBack1Handler, 43
  - BtnBack1Handler, 45
  - driver, 45
  - handle, 45
- handlers.BtnBackHandler, 46
  - BtnBackHandler, 48
  - driver, 48
  - handle, 48
- handlers.BtnLoginHandler, 49
  - BtnLoginHandler, 51
  - driver, 51
  - handle, 51
- handlers.BtnNewUserHandler, 52
  - BtnNewUserHandler, 54
  - driver, 54
  - handle, 54
- handlers.BtnQuitHandler, 55
  - handle, 56
- handlers.BtnStartHandler, 56
  - BtnStartHandler, 58
  - driver, 58
  - handle, 58
- handlers.BtnTLiftHandler, 59
  - BtnTLiftHandler, 61
  - driver, 61
  - handle, 61
- handlers.BtnTrackHandler, 62
  - BtnTrackHandler, 64
  - driver, 64
  - handle, 64
- handlers.BtnTWeightHandler, 65

- BtnTWeightHandler, 67
  - driver, 67
  - handle, 67
- handlers.BtnUpdateHandler, 68
  - BtnUpdateHandler, 70
  - driver, 70
  - handle, 70
- handlers.BtnViewHandler, 71
  - BtnViewHandler, 73
  - driver, 73
  - handle, 73
- heap
  - calc.Calc\_Abstract, 81
  - structs.SDouble, 193
  - structs.SInt, 207
  - structs.SString, 222
- HEIGHT
  - data.UserDataIndex, 279
- Height
  - data.Height, 147
- Home
  - menu.Home, 150
- i1
  - data.UserData, 253
- i2
  - data.UserData, 253
- index
  - data.UserDataIndex, 279
- INFO
  - data.UserDataIndex, 279
- Info
  - data.Info, 154
- Init\_Data
  - calc.UserData\_Calc, 263
  - data.UserData, 251
- Is0\_1
  - structs.Struct, 232
- IsBetween1\_2
  - data.Activity\_Level, 19
- IsNot0
  - structs.Struct, 233
- IsPositive
  - structs.Struct, 233
- I1
  - data.UserData, 253
- I2
  - data.UserData, 254
- I3
  - data.UserData, 254
- Lifting\_Abstract
  - calc.Lifting\_Abstract, 157
- Lifting\_Stats
  - menu.Fitness, 133
  - menu.Lifting\_Stats, 163
- Lifts
  - data.Lifts, 167, 168
- List\_Calc
  - calc.UserData\_Calc, 264
- List\_Double
  - data.UserData, 254
- List\_Int
  - data.UserData, 254
- List\_Lifts
  - data.UserData, 254
- List\_String
  - data.UserData, 254
- main
  - driver.FormProjectDriver, 136
  - menu.Main, 170
- MaleStandard
  - calc.Barbell\_Curl, 22
  - calc.Bench\_Press, 33
  - calc.Deadlift, 91
  - calc.Lifting\_Abstract, 158
  - calc.Shoulder\_Press, 202
  - calc.Squat, 213
- menu, 13
  - Editor, 98
  - Editor, 100
  - Get\_Data, 101
  - SelectMenu, 100
  - Set\_Data, 101
- menu.Editor\_Abstract, 102
  - Editor\_Abstract, 104
  - Menu\_Main, 104
  - tools, 105
- menu.Editor\_Get, 106
  - Editor\_Get, 108
  - GetData\_String, 108
  - SelectMenu, 109
- menu.Editor\_Set, 109
  - Editor\_Set, 112
  - SaveProgress, 112
  - SelectMenu, 113
- menu.Fitness, 129
  - Basal\_Metabolic, 132
  - BMI, 132
  - Display\_Caloric, 132
  - Editor, 133
  - FFMI, 133
  - Fitness, 131
  - Lifting\_Stats, 133
  - SelectMenu, 132
  - VO2\_Max, 133
- menu.Home, 147
  - Home, 150
  - SelectMenu, 150
  - Track\_Fitness, 151
  - View\_Insights, 151
- menu.Lifting\_Stats, 161
  - BarbellCurl, 164
  - BenchPress, 164
  - Deadlift, 164
  - Lifting\_Stats, 163
  - SelectMenu, 163

- ShoulderPress, 164
- Squat, 164
- menu.Main, 170
  - main, 170
- menu.Menu\_Abstract, 171
  - AddMenu\_Entry, 174
  - ClearScreen, 174
  - GetMenu\_Entry, 175
  - GetMenu\_List, 175
  - GetMenu\_Title, 176
  - Menu\_Abstract, 173
  - Menu\_Exit, 181
  - Menu\_List, 181
  - Menu\_Main, 176
  - Menu\_Title, 181
  - MenuFlush, 177
  - SelectMenu, 178
  - SelectMenu\_Bool, 179
  - SelectMenu\_Scanner, 180
  - SetMenu\_Title, 180
- menu.Menu\_Entry, 182
  - Entry, 183
  - GetMenu\_Entry, 183
  - Menu\_Entry, 182
- menu.Profiler, 183
  - Profiler, 184
- menu.User\_Select, 241
  - GenerateList, 243
  - SelectMenu, 243
  - User\_Select, 243
- Menu\_Abstract
  - menu.Menu\_Abstract, 173
- Menu\_Entry
  - menu.Menu\_Entry, 182
- Menu\_Exit
  - menu.Menu\_Abstract, 181
- Menu\_List
  - menu.Menu\_Abstract, 181
- Menu\_Main
  - menu.Editor\_Abstract, 104
  - menu.Menu\_Abstract, 176
- Menu\_Title
  - menu.Menu\_Abstract, 181
- MenuFlush
  - menu.Menu\_Abstract, 177
- Method
  - calc.Basal\_Metabolic, 25
  - calc.BMI, 42
  - calc.Calc\_Abstract, 78
  - calc.Display\_Caloric, 97
  - calc.FFMI, 119
  - calc.Lifting\_Abstract, 158
  - calc.VO2\_Max, 284
- path
  - file\_io.UserData\_File, 267
- pathname
  - file\_io.UserData\_File, 267
  - file\_io.UserList, 281
- Profiler
  - menu.Profiler, 184
- rep\_weight
  - calc.Lifting\_Abstract, 160
- RESTING\_BPM
  - data.UserDataIndex, 279
- Resting\_BPM
  - data.Resting\_BPM, 187
- Result
  - calc.Calc\_Abstract, 79
- s1
  - data.UserData, 254
- s2
  - data.UserData, 254
- SaveData
  - file\_io.UserData\_File, 266
- SaveProgress
  - menu.Editor\_Set, 112
- scene
  - gui.BaseScene, 30
- SDouble
  - structs.SDouble, 190
- SE
  - calc.Calc\_Abstract, 80
  - structs.SDouble, 192
  - structs.SInt, 207
  - structs.SString, 221
  - structs.Struct, 233
- SearchData\_Type
  - data.UserData, 251
  - data.UserData\_Tools, 274
- SecondScene
  - gui.SecondScene, 196
- SelectMenu
  - menu.Editor, 100
  - menu.Editor\_Get, 109
  - menu.Editor\_Set, 113
  - menu.Fitness, 132
  - menu.Home, 150
  - menu.Lifting\_Stats, 163
  - menu.Menu\_Abstract, 178
  - menu.User\_Select, 243
- SelectMenu\_Bool
  - menu.Menu\_Abstract, 179
- SelectMenu\_Scanner
  - menu.Menu\_Abstract, 180
- Set
  - data.UserData\_Tools, 275
- Set\_Data
  - menu.Editor, 101
- Set\_Interactive
  - data.UserData\_Tools, 276
- SetData
  - file\_io.UserData\_File, 266
- SetEntry
  - data.UserData, 251
  - structs.Struct, 234



- SetEntry\_Direct
  - data.UserData, [252](#)
- SetLock
  - structs.Struct, [235](#)
- SetMenu\_Title
  - menu.Menu\_Abstract, [180](#)
- setScene
  - driver.FormProjectDriver, [136](#)
  - gui.BaseScene, [29](#)
- SetType
  - structs.Struct, [235](#)
- SetUnits
  - structs.Struct, [236](#)
- setup
  - gui.BaseScene, [30](#)
  - gui.EighthScene, [116](#)
  - gui.FifthScene, [122](#)
  - gui.FirstScene, [128](#)
  - gui.FourthScene, [140](#)
  - gui.SecondScene, [196](#)
  - gui.SeventhScene, [199](#)
  - gui.SixthScene, [210](#)
  - gui.ThirdScene, [240](#)
- SetWeight
  - data.Lifts, [169](#)
- SeventhScene
  - gui.SeventhScene, [199](#)
- Shoulder\_Press
  - calc.Shoulder\_Press, [202](#)
- ShoulderPress
  - menu.Lifting\_Stats, [164](#)
- SInt
  - structs.SInt, [205](#)
- SixthScene
  - gui.SixthScene, [210](#)
- SP
  - calc.UserData\_Calc, [265](#)
- SQ
  - calc.UserData\_Calc, [265](#)
- SQUAT
  - data.UserDataIndex, [279](#)
- Squat
  - calc.Squat, [213](#)
  - menu.Lifting\_Stats, [164](#)
- Squats
  - data.Squats, [216](#)
- SString
  - structs.SString, [219](#)
- stage
  - driver.FormProjectDriver, [137](#)
- start
  - driver.FormProjectDriver, [137](#)
- STEPS
  - data.UserDataIndex, [279](#)
- Steps
  - data.Steps, [225](#)
- Struct
  - structs.Struct, [227](#), [228](#)
- Struct\_Entry
  - structs.Struct, [237](#)
- Struct\_Lock
  - structs.Struct, [237](#)
- Struct\_Type
  - structs.Struct, [237](#)
- Struct\_Units
  - structs.Struct, [237](#)
- structs, [14](#)
- structs.SDouble, [187](#)
  - CC, [191](#)
  - CT, [191](#)
  - heap, [193](#)
  - SDouble, [190](#)
  - SE, [192](#)
- structs.SInt, [203](#)
  - CC, [206](#)
  - CT, [206](#)
  - heap, [207](#)
  - SE, [207](#)
  - SInt, [205](#)
- structs.SString, [216](#)
  - CC, [220](#)
  - CT, [220](#)
  - heap, [222](#)
  - SE, [221](#)
  - SString, [219](#)
- structs.Struct, [225](#)
  - CC, [229](#)
  - COT, [229](#)
  - CT, [230](#)
  - GetEntry, [230](#)
  - GetLock, [231](#)
  - GetType, [231](#)
  - GetUnits, [232](#)
  - Is0\_1, [232](#)
  - IsNot0, [233](#)
  - IsPositive, [233](#)
  - SE, [233](#)
  - SetEntry, [234](#)
  - SetLock, [235](#)
  - SetType, [235](#)
  - SetUnits, [236](#)
  - Struct, [227](#), [228](#)
  - Struct\_Entry, [237](#)
  - Struct\_Lock, [237](#)
  - Struct\_Type, [237](#)
  - Struct\_Units, [237](#)
- tests, [14](#)
- tests.dataTest, [82](#)
  - CheckInvalidSE, [83](#)
  - CheckNegativeSE, [83](#)
  - CheckNull, [84](#)
  - CheckSE, [84](#)
  - CheckType, [84](#)
  - CheckUnits, [85](#)
  - delta, [88](#)
  - G, [88](#)

- GCheckGet, [85](#)
- GCheckSE, [85](#)
- U, [88](#)
- UCatchException, [86](#)
- UCheckNotNull, [86](#)
- UDT, [88](#)
- UDTCheckNotNull, [86](#)
- UDTSearchUnits, [87](#)
- UDTSet, [87](#)
- UStringNonEmpty, [87](#)
- W, [88](#)
- tests.file\_ioTest, [123](#)
  - CleanUp, [124](#)
  - U, [125](#)
  - UDT, [125](#)
  - UDTRetrieve, [124](#)
  - UDTSet, [124](#)
- ThirdScene
  - gui.ThirdScene, [240](#)
- tools
  - menu.Editor\_Abstract, [105](#)
- Track\_Fitness
  - menu.Home, [151](#)
- U
  - tests.dataTest, [88](#)
  - tests.file\_ioTest, [125](#)
- UCatchException
  - tests.dataTest, [86](#)
- UCheckNotNull
  - tests.dataTest, [86](#)
- UDT
  - tests.dataTest, [88](#)
  - tests.file\_ioTest, [125](#)
- UDTCheckNotNull
  - tests.dataTest, [86](#)
- UDTRetrieve
  - tests.file\_ioTest, [124](#)
- UDTSearchUnits
  - tests.dataTest, [87](#)
- UDTSet
  - tests.dataTest, [87](#)
  - tests.file\_ioTest, [124](#)
- User\_Select
  - menu.User\_Select, [243](#)
- UserData
  - data.UserData, [246](#)
- userdata
  - driver.FormProjectDriver, [137](#)
- UserData\_Calc
  - calc.UserData\_Calc, [257](#)
- UserData\_Tools
  - data.UserData\_Tools, [269](#)
- userdataCalc
  - driver.FormProjectDriver, [137](#)
- UserDataIndex
  - data.UserDataIndex, [278](#)
- UserNew
  - data.UserData, [255](#)
- UStringNonEmpty
  - tests.dataTest, [87](#)
- View\_Insights
  - menu.Home, [151](#)
- VO2\_Max
  - calc.UserData\_Calc, [265](#)
  - calc.VO2\_Max, [284](#)
  - menu.Fitness, [133](#)
- W
  - tests.dataTest, [88](#)
- WEIGHT
  - data.UserDataIndex, [280](#)
- Weight
  - data.Weight, [287](#)
- weight
  - calc.Lifting\_Abstract, [160](#)
  - data.Lifts, [169](#)
- WeightMessage
  - calc.Lifting\_Abstract, [159](#)
- x
  - calc.Calc\_Abstract, [81](#)
- z
  - data.UserData\_Tools, [276](#)