My Project

Generated by Doxygen 1.8.15

1.1 Class Hierarchy	1	Hierarchical Index	1
2.1 Class List		1.1 Class Hierarchy	1
3 File Index 3.1 File List 5 3.1 File List 5 4 Class Documentation 4.1 back screen Class Reference 4.1.1 Detailed Description 7 4.1.2 Member Function Documentation 7 4.1.2 Show() 7 4.2 Ball Class Reference 8 4.2.1 Detailed Description 8 4.2.2 Constructor & Destructor Documentation 8 4.2.2.1 Ball() 9 4.2.3.1 Member Function Documentation 9 4.2.3.1 GetVelocity() 9 4.2.3.2 LinearVelocityX() 9 4.2.3.2 LinearVelocityX() 9 4.2.3.4 Update() 9 4.2.4 Member Data Documentation 10 4.2.4.1 angle 10 4.2.4.2 angle 10 4.2.4.3 velocity 10 4.2.4.3 Game Class Reference 10 4.3 Game Class Reference 10 4.3 Game Class Reference 11 4.3.2 Member Function Documentation 11 4.3.2 Member Function Documentation 11 4.3.3 Member Function Documentation 12 4.3.3.1 GameState 13 4.3.3 Member Function Documentation 14 4.3.3 Member Function Documentation 15 4.3.3.1 GameState 16 4.3.3 Member Function Documentation 17 4.3.3 Member Function Documentation 18 4.3.3 Member Function Documentation 19 4.3.3 Setring() 19 4.3.3.3 Setring() 19 4.3.3.3 Setring() 19 4.3.3.3 Shart() 19 19 19 19 19 19 19 19 19 19 19 19 19	2	Class Index	3
3.1 File List 5 4 Class Documentation 7 4.1 back_screen Class Reference 7 4.1.1 Detailed Description 7 4.1.2 Member Function Documentation 7 4.1.2.1 Show() 7 4.2 Ball Class Reference 8 4.2.1 Detailed Description 8 4.2.2 Constructor & Destructor Documentation 8 4.2.2 Constructor & Destructor Documentation 9 4.2.3.1 Member Function Documentation 9 4.2.3.1 GetVelocity() 9 4.2.3.2 LinearVelocity() 9 4.2.3.3 LinearVelocity() 9 4.2.3.4 Update() 9 4.2.4.4 Member Data Documentation 10 4.2.4.1 angle 10 4.2.4.2 elapsed Time SinceStart 10 4.2.4.3 velocity 10 4.2.3 Game Class Reference 10 4.3 Game Class Reference 10 4.3.1 Detailed Description 11 4.3.2 Member Function Documentation 11 4.3.3 Member Function Documentation 11 4.3.3 Game Class Reference 10 4.3.3 Game Class Reference 10 4.3.3 Game Class Reference 10 4.3.3 Member Function Documentation 11 4.3.2 Member Enumeration Documentation 11 4.3.3 Member Function Documentation 11 4.3.3 Member Function Documentation 11 4.3.3 Member Function Documentation 12 4.3.3.1 GameState 11 4.3.3 Member Function Documentation 12 4.3.3.3 Get(GameState) 11 4.3.3 Member Function Documentation 12 4.3.3.3 Get(GameState) 11 4.3.3 Member Function Documentation 12 4.3.3.3 Get(GameState) 13 4.3.3 Get(GameSt		2.1 Class List	3
4 Class Documentation       7         4.1 back_screen Class Reference       7         4.1.1 Detailed Description       7         4.1.2 Member Function Documentation       7         4.1.2.1 Show()       7         4.2.2 Ball Class Reference       8         4.2.1 Detailed Description       8         4.2.2.1 Ball()       9         4.2.2.1 Ball()       9         4.2.2.3 Member Function Documentation       9         4.2.3.3 IngetVelocity()       9         4.2.3.2 Linear/VelocityX()       9         4.2.3.3 Linear/VelocityY()       9         4.2.3.4 Update()       9         4.2.4.3 manufacture       10         4.2.4.1 manufacture       10         4.2.4.2 elapsed Time Since Start       10         4.2.4.3 melocity       10         4.2.4.3 melocity       10         4.2.4.3 melocity       10         4.3.1 Detailed Description       11         4.3.2 I Game State       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetImput()       12         4.3.3.6 show_back_screen()       13	3	File Index	5
4.1.1 back, screen Class Reference       7         4.1.1 Detailed Description       7         4.1.2.1 Show()       7         4.1.2.1 Show()       7         4.2.2 Ball Class Reference       8         4.2.1 Detailed Description       8         4.2.2 Constructor & Destructor Documentation       8         4.2.2.1 Ball()       9         4.2.2.1 Ball()       9         4.2.3.1 GetVelocity()       9         4.2.3.1 GetVelocity()       9         4.2.3.2 LinearVelocityX()       9         4.2.3.3 LinearVelocityY()       9         4.2.4.3 Update()       9         4.2.4.4 Member Data Documentation       10         4.2.4.1 _angle       10         4.2.4.2 _elapsedTimeSinceStart       10         4.2.4.3 _velocity       10         4.2.4.3 _velocity       10         4.2.4.3 _selference       10         4.3.1 Detailed Description       11         4.3.2 HameState       11         4.3.3 Member Enumeration Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetImput()       12         4.3.3.6 show_back_screen()       13 </td <td></td> <td>3.1 File List</td> <td>5</td>		3.1 File List	5
4.1.1 Detailed Description       7         4.1.2 Member Function Documentation       7         4.1.2.1 Show()       7         4.2.2 Ball Class Reference       8         4.2.1 Detailed Description       8         4.2.2 Constructor & Destructor Documentation       8         4.2.2.1 Ball()       9         4.2.2.1 Ball()       9         4.2.3.1 Member Function Documentation       9         4.2.3.1 GetVelocity()       9         4.2.3.2 LinearVelocityX()       9         4.2.3.3 LinearVelocityY()       9         4.2.4.1 angle       10         4.2.4.1 angle       10         4.2.4.2 elapsedTimeSinceStart       10         4.2.4.3 velocity       10         4.2.4.3 velocity       10         4.2.4.3 pelocity       10         4.2.4.3 pelocity       10         4.3.3 member Enumeration Documentation       11         4.3.2 I GameState       11         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetImput()       12         4.3.3.6 show_back_screen()       13         4.3.3.6 show_back_screen()       13         4.3.3.8 Start()       13	4	Class Documentation	7
4.1.2 Member Function Documentation       7         4.1.2.1 Show()       7         4.2 Ball Class Reference       8         4.2.1 Detailed Description       8         4.2.2 Constructor & Destructor Documentation       8         4.2.2.1 Ball()       9         4.2.2.2 ~ Ball()       9         4.2.3 Member Function Documentation       9         4.2.3.1 GetVelocity()       9         4.2.3.2 Linear/velocityX()       9         4.2.3.3 Linear/velocityY()       9         4.2.4.4 Update()       9         4.2.4 Member Data Documentation       10         4.2.4.1 _angle       10         4.2.4.2 _elapsedTimeSinceStart       10         4.2.4.3 _velocity       10         4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.8 Start() <t< td=""><td></td><td>4.1 back_screen Class Reference</td><td>7</td></t<>		4.1 back_screen Class Reference	7
4.1.2.1 Show()       7         4.2.8 Ball Class Reference       8         4.2.1 Detailed Description       8         4.2.2 Constructor & Destructor Documentation       8         4.2.2.1 Ball()       9         4.2.2.2 ~ Ball()       9         4.2.3 Member Function Documentation       9         4.2.3.1 GetVelocity()       9         4.2.3.2 Linear/velocityX()       9         4.2.3.3 Linear/velocityY()       9         4.2.4.4 Member Data Documentation       10         4.2.4.1 _angle       10         4.2.4.2 _elapsedTimeSinceStart       10         4.2.4.3 _velocity       10         4.2.4.4 score       10         4.3.3 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2 Member Function Documentation       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.1.1 Detailed Description	7
4.2 Ball Class Reference       8         4.2.1 Detailed Description       8         4.2.2 Constructor & Destructor Documentation       8         4.2.2.1 Ball()       9         4.2.2.2 ~Ball()       9         4.2.3 Member Function Documentation       9         4.2.3.1 GetVelocity()       9         4.2.3.2 Linear/VelocityX()       9         4.2.3.3 Linear/VelocityY()       9         4.2.4.4 Member Data Documentation       10         4.2.4.1 _angle       10         4.2.4.2 _elapsedTimeSinceStart       10         4.2.4.3 _velocity       10         4.2.4.4 score       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.1.2 Member Function Documentation	7
4.2.1 Detailed Description       8         4.2.2 Constructor & Destructor Documentation       8         4.2.2.1 Ball()       9         4.2.2.2 ~Ball()       9         4.2.3 Member Function Documentation       9         4.2.3.1 GetVelocity()       9         4.2.3.2 LinearVelocityY()       9         4.2.3.3 LinearVelocityY()       9         4.2.4 Member Data Documentation       10         4.2.4 Member Data Documentation       10         4.2.4.1 _angle       10         4.2.4.2 _elapsedTimeSinceStart       10         4.2.4.3 _velocity       10         4.2.4.4 score       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2 Member Function Documentation       11         4.3.3 GameLoop()       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.8 Start()       13		4.1.2.1 Show()	7
4.2.2 Constructor & Destructor Documentation 4.2.2.1 Ball() 9.4.2.2. ∼Ball() 9.4.2.3.1 Member Function Documentation 9.4.2.3.1 GetVelocity() 9.4.2.3.2 LinearVelocityX() 9.4.2.3.3 LinearVelocityY() 9.4.2.3.4 Update() 9.4.2.4 Member Data Documentation 10 4.2.4.1 _angle 10 4.2.4.2 _elapsedTimeSinceStart 10 4.2.4.3 _velocity 10 4.2.4.3 _velocity 10 4.3.1 Detailed Description 11 4.3.2 Member Enumeration Documentation 11 4.3.2 Member Enumeration Documentation 11 4.3.3 Member Function Documentation 11 4.3.3 Member Function Documentation 12 4.3.3.1 GameLoop() 12 4.3.3.2 GetGameObjectManager() 12 4.3.3.3 GetInput() 12 4.3.3.3 GetInput() 12 4.3.3.5 IsExiting() 12 4.3.3.5 Show_back_screen() 13 4.3.3.7 ShowMenu() 13 4.3.3.8 Start()		4.2 Ball Class Reference	8
4.2.2.1 Ball()  4.2.2.∼Ball()  9  4.2.3 Member Function Documentation  9  4.2.3.1 GetVelocity()  9  4.2.3.2 Linear/velocityX()  9  4.2.3.3 Linear/velocityY()  9  4.2.3.4 Update()  9  4.2.4 Member Data Documentation  10  4.2.4.1 _angle  10  4.2.4.2 _elapsedTimeSinceStart  10  4.2.4.3 _velocity  10  4.2.4.4 score  10  4.3 Game Class Reference  10  4.3.1 Detailed Description  11  4.3.2 Member Enumeration Documentation  11  4.3.2.1 GameState  11  4.3.3 Member Function Documentation  11  4.3.3 GameLoop()  12  4.3.3.2 GetGameObjectManager()  12  4.3.3.3 GetInput()  12  4.3.3.4 GetWindow()  12  4.3.3.5 IsExiting()  12  4.3.3.7 ShowMenu()  13  4.3.3.7 ShowMenu()  13  4.3.3.7 ShowMenu()  13  4.3.3.8 Start()		4.2.1 Detailed Description	8
4.2.2 ~ Ball()       9         4.2.3 Member Function Documentation       9         4.2.3.1 GetVelocity()       9         4.2.3.2 Linear/velocityY()       9         4.2.3.4 Update()       9         4.2.4 Member Data Documentation       10         4.2.4.1 _ angle       10         4.2.4.2 _ elapsedTimeSinceStart       10         4.2.4.3 _ velocity       10         4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.2 Constructor & Destructor Documentation	8
4.2.3 Member Function Documentation       9         4.2.3.1 GetVelocityX()       9         4.2.3.2 LinearVelocityY()       9         4.2.3.4 Update()       9         4.2.4 Member Data Documentation       10         4.2.4.1 _angle       10         4.2.4.2 _elapsedTimeSinceStart       10         4.2.4.3 _velocity       10         4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.2.1 Ball()	9
4.2.3.1 GetVelocity()       9         4.2.3.2 LinearVelocityX()       9         4.2.3.3 LinearVelocityY()       9         4.2.3.4 Update()       9         4.2.4 Member Data Documentation       10         4.2.4.1 _angle       10         4.2.4.2 _elapsedTimeSinceStart       10         4.2.4.3 _velocity       10         4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.2.2 ∼Ball()	9
4.2.3.2 LinearVelocityX()       9         4.2.3.3 LinearVelocityY()       9         4.2.3.4 Update()       9         4.2.4 Member Data Documentation       10         4.2.4.1 _angle       10         4.2.4.2 _elapsedTimeSinceStart       10         4.2.4.3 _velocity       10         4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.5 IsExtiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.3 Member Function Documentation	9
4.2.3.3 LinearVelocityY()       9         4.2.3.4 Update()       9         4.2.4 Member Data Documentation       10         4.2.4.1 _angle       10         4.2.4.2 _elapsedTimeSinceStart       10         4.2.4.3 _velocity       10         4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.3.1 GetVelocity()	9
4.2.3.4 Update().       9         4.2.4 Member Data Documentation       10         4.2.4.1 _ angle       10         4.2.4.2 _ elapsedTimeSinceStart       10         4.2.4.3 _ velocity       10         4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.3.2 LinearVelocityX()	9
4.2.4 Member Data Documentation       10         4.2.4.1 _ angle       10         4.2.4.2 _ elapsedTimeSinceStart       10         4.2.4.3 _ velocity       10         4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.3.3 LinearVelocityY()	9
4.2.4.1 _ angle       10         4.2.4.2 _ elapsedTimeSinceStart       10         4.2.4.3 _ velocity       10         4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.3.4 Update()	9
4.2.4.2 _elapsedTimeSinceStart       10         4.2.4.3 _velocity       10         4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.4 Member Data Documentation	10
4.2.4.3 _ velocity       10         4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.4.1 _angle	10
4.2.4.4 score       10         4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.4.2 _elapsedTimeSinceStart	10
4.3 Game Class Reference       10         4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.4.3 _velocity	10
4.3.1 Detailed Description       11         4.3.2 Member Enumeration Documentation       11         4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.2.4.4 score	10
4.3.2 Member Enumeration Documentation       11         4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.3 Game Class Reference	10
4.3.2.1 GameState       11         4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.3.1 Detailed Description	11
4.3.3 Member Function Documentation       12         4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.3.2 Member Enumeration Documentation	11
4.3.3.1 GameLoop()       12         4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.3.2.1 GameState	11
4.3.3.2 GetGameObjectManager()       12         4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.3.3 Member Function Documentation	12
4.3.3.3 GetInput()       12         4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.3.3.1 GameLoop()	12
4.3.3.4 GetWindow()       12         4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.3.3.2 GetGameObjectManager()	12
4.3.3.5 IsExiting()       12         4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.3.3.3 GetInput()	12
4.3.3.6 show_back_screen()       13         4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.3.3.4 GetWindow()	12
4.3.3.7 ShowMenu()       13         4.3.3.8 Start()       13		4.3.3.5 lsExiting()	12
4.3.3.8 Start()		4.3.3.6 show_back_screen()	13
		4.3.3.7 ShowMenu()	13
4.3.4 Member Data Documentation		4.3.3.8 Start()	13
		4.3.4 Member Data Documentation	13

4.3.4.1 _gameObjectManager	. 13
4.3.4.2 _gameState	. 13
4.3.4.3 _hud	. 13
4.3.4.4 _mainWindow	. 13
4.3.4.5 music	. 14
4.3.4.6 SCREEN_HEIGHT	. 14
4.3.4.7 SCREEN_WIDTH	. 14
4.4 HUD Class Reference	. 14
4.4.1 Detailed Description	. 14
4.4.2 Constructor & Destructor Documentation	. 15
4.4.2.1 HUD()	. 15
4.4.2.2 ~HUD()	. 15
4.4.3 Member Function Documentation	. 15
4.4.3.1 SetPaletka()	. 15
4.4.3.2 SetPlayer()	. 15
4.4.3.3 Show()	. 16
4.4.4 Member Data Documentation	. 16
4.4.4.1 font	. 16
4.4.4.2 player	. 16
4.4.4.3 player2	. 16
4.4.4 text	. 16
4.5 MainMenu Class Reference	. 17
4.5.1 Detailed Description	. 17
4.5.2 Member Enumeration Documentation	. 17
4.5.2.1 MenuResult	. 17
4.5.3 Member Function Documentation	. 18
4.5.3.1 GetMenuResponse()	. 18
4.5.3.2 HandleClick()	. 18
4.5.3.3 Show()	. 19
4.5.4 Member Data Documentation	. 19
4.5.4.1 _menultems	. 19
4.6 menager Class Reference	. 19
4.6.1 Detailed Description	. 20
4.6.2 Constructor & Destructor Documentation	. 20
4.6.2.1 menager()	. 20
4.6.2.2 ∼menager()	. 20
4.6.3 Member Function Documentation	. 20
4.6.3.1 Add()	. 20
4.6.3.2 DrawAll()	. 21
4.6.3.3 Get()	. 21
4.6.3.4 GetObjectCount()	. 21
4.6.3.5 Remove()	. 22

4.6.3.6 Update_all()	22
4.6.4 Member Data Documentation	22
4.6.4.1 _gameObjects	22
4.6.4.2 clock	22
4.7 MainMenu::MenuItem Struct Reference	22
4.7.1 Detailed Description	23
4.7.2 Member Data Documentation	23
4.7.2.1 action	23
4.7.2.2 rect	23
4.8 menager::object_delocation Struct Reference	23
4.8.1 Detailed Description	23
4.8.2 Member Function Documentation	23
4.8.2.1 operator()()	24
4.9 Paletka_2 Class Reference	24
4.9.1 Detailed Description	24
4.9.2 Constructor & Destructor Documentation	25
4.9.2.1 Paletka_2()	25
4.9.2.2 ~Paletka_2()	25
4.9.3 Member Function Documentation	25
4.9.3.1 Draw()	25
4.9.3.2 GetVelocity()	25
4.9.3.3 Update()	26
4.9.4 Member Data Documentation	26
4.9.4.1 _elapsedTimeSinceStart	26
4.9.4.2 _maxVelocity	26
4.9.4.3 _velocity	26
4.9.4.4 score	26
4.10 player_paletka Class Reference	27
4.10.1 Detailed Description	27
4.10.2 Constructor & Destructor Documentation	27
4.10.2.1 player_paletka()	27
4.10.2.2 ~player_paletka()	28
4.10.3 Member Function Documentation	28
4.10.3.1 Draw()	28
4.10.3.2 GetVelocity()	28
4.10.3.3 Update()	28
4.10.4 Member Data Documentation	29
4.10.4.1 _maxVelocity	29
4.10.4.2 _velocity	29
4.10.4.3 score	29
4.11 visible_obj Class Reference	29
4.11.1 Detailed Description	30

4.11.2 Constructor & Destructor Documentation	
4.11.2.1 visible_obj()	
4.11.2.2 ∼visible_obj()	
4.11.3 Member Function Documentation	
4.11.3.1 drawing()	
4.11.3.2 GetBoundingRect()	
4.11.3.3 GetHeight()	
4.11.3.4 GetPosition()	
4.11.3.5 GetSprite()	
4.11.3.6 GetWidth()	
4.11.3.7 lsLoaded()	
4.11.3.8 load()	
4.11.3.9 set_position()	
4.11.3.10 Update()	
4.11.4 Member Data Documentation	
4.11.4.1 file_name	
4.11.4.2 image	
4.11.4.3 is_loaded	
4.11.4.4 sprite	
5 File Documentation	35
5.1 back_screen.cpp File Reference	
5.2 back_screen.hpp File Reference	
5.2.1 Detailed Description	
5.3 Ball.cpp File Reference	
5.4 Ball.hpp File Reference	
5.4.1 Detailed Description	
5.5 game.cpp File Reference	
5.6 game.hpp File Reference	
5.6.1 Detailed Description	
5.7 HUD.cpp File Reference	
5.8 HUD.hpp File Reference	
5.9 main.cpp File Reference	
5.9.1 Function Documentation	
5.9.1.1 main()	
5.10 MainMenu.cpp File Reference	
5.11 MainMenu.hpp File Reference	
5.11.1 Detailed Description	
5.12 Menager.cpp File Reference	
5.13 Menager.hpp File Reference	
5.13.1 Detailed Description	

5.15 paletka_2.hpp File Reference	40
5.15.1 Detailed Description	40
5.16 player_paletka.cpp File Reference	41
5.17 player_paletka.hpp File Reference	41
5.17.1 Detailed Description	41
5.18 Visible_obj.cpp File Reference	41
5.19 Visible_obj.hpp File Reference	42
5 19 1 Detailed Description	42

# **Chapter 1**

# **Hierarchical Index**

## 1.1 Class Hierarchy

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

pack_screen	7
Game	10
HUD	14
MainMenu	17
nenager	19
MainMenu::MenuItem	22
nenager::object_delocation	
risible_obj	29
Ball	8
Paletka_2	24
player paletka	27

2 Hierarchical Index

# Chapter 2

# **Class Index**

## 2.1 Class List

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

back_screer	en e	
Is	responsible for creating and displaying the back screen of the game	7
Ball		
Re	esponsible for creating a ball object and manipulating it	8
Game		
Re	epresents the game	10
HUD		
	esponsible for creating and displaying the results of each player after losing the game by one fithem	14
MainMenu		
	responsible for creating and displaying the main menu screen of the game and catches the louse movement	17
menager		
Re	esponspible for holding all of our visibe objects, being in charge of updating, drawing and then	
fin	nally removing them	19
MainMenu::	:Menultem	22
menager::ob	bject_delocation	23
Paletka_2		
Cr	reates the AI player's paddle	24
player_palet	etka	
Cr	reates the player's paddle	27
visible_obj		
	epresents an item in the world that needs to be drawn, such as the player's paddle or the ame's ball	29

4 Class Index

# **Chapter 3**

# File Index

## 3.1 File List

Here is a list of all files with brief descriptions:

back_screen.cpp	35
back_screen.hpp	
The file contains class which displays the back screen of the game	35
Ball.cpp	36
The file contains class which manipulate the game ball object	36
game.cpp	36
The file contains entirely static class 'Game'	37
HUD.cpp	37
HUD.hpp	37
main.cpp	38
MainMenu.cpp	38
MainMenu.hpp	
The file contains class which displays the main menu screen of the game	39
Menager.cpp	39
Menager.hpp	
The file contains class which manipulate the visible obejcts	39
paletka_2.cpp	40
The file contains class which manipulate the AI player paddle object	40
player paletka.cpp	41
player_paletka.hpp	7
The file contains class which manipulate the player paddle object	41
Visible obj.cpp	41
Visible_obj.hpp	7
The file contains class which displays the objects such as ball or paddles	42

6 File Index

# **Chapter 4**

# **Class Documentation**

## 4.1 back\_screen Class Reference

Is responsible for creating and displaying the back screen of the game.

```
#include <back_screen.hpp>
```

Collaboration diagram for back\_screen:

## **Public Member Functions**

void Show (sf::RenderWindow &window)

## 4.1.1 Detailed Description

Is responsible for creating and displaying the back screen of the game.

## 4.1.2 Member Function Documentation

## 4.1.2.1 Show()

Function load a back-screen image file and create a sprite to display it.

#### **Parameters**

window	is a created window.
VVIIIGOVV	is a cicatod willadw.

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

- back\_screen.hpp
- back\_screen.cpp

## 4.2 Ball Class Reference

Responsible for creating a ball object and manipulating it.

```
#include <Ball.hpp>
```

Inheritance diagram for Ball:

Collaboration diagram for Ball:

## **Public Member Functions**

- Ball ()
- virtual ∼Ball ()
- void Update (float elapsedTime)
- float GetVelocity () const

## **Public Attributes**

· bool score

#### **Private Member Functions**

- float LinearVelocityX (float angle)
- float LinearVelocityY (float angle)

## **Private Attributes**

- float \_velocity
- float \_angle
- float \_elapsedTimeSinceStart

## **Additional Inherited Members**

## 4.2.1 Detailed Description

Responsible for creating a ball object and manipulating it.

## 4.2.2 Constructor & Destructor Documentation

4.2 Ball Class Reference 9

```
4.2.2.1 Ball()
```

```
Ball::Ball ( )
```

Create the Ball object.

```
4.2.2.2 \simBall()
```

```
Ball::~Ball ( ) [virtual]
```

Destroys objects.

## 4.2.3 Member Function Documentation

## 4.2.3.1 GetVelocity()

```
float Ball::GetVelocity ( ) const
```

Function gets the velocity of the object.

Returns

a float variable which represents a velocity of the ball.

## 4.2.3.2 LinearVelocityX()

## 4.2.3.3 LinearVelocityY()

## 4.2.3.4 Update()

Function updates the elapsed time since the last frame and changes the speed and movement of the ball.

## **Parameters**

elapsedTime	float variable which gives the elapsed time since the last frame.	
-------------	---	--

Reimplemented from visible\_obj.

## 4.2.4 Member Data Documentation

## 4.2.4.1 \_angle

```
float Ball::_angle [private]
```

## 4.2.4.2 \_elapsedTimeSinceStart

```
float Ball::_elapsedTimeSinceStart [private]
```

## 4.2.4.3 \_velocity

```
float Ball::_velocity [private]
```

## 4.2.4.4 score

```
bool Ball::score
```

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

- Ball.hpp
- Ball.cpp

## 4.3 Game Class Reference

## Represents the game.

```
#include <game.hpp>
```

## Collaboration diagram for Game:

4.3 Game Class Reference 11

## **Static Public Member Functions**

- static void Start ()
- static sf::RenderWindow & GetWindow ()
- static const sf::Event & GetInput ()
- static const menager & GetGameObjectManager ()

## **Static Public Attributes**

- static const int SCREEN\_WIDTH = 1024
- static const int SCREEN\_HEIGHT = 768

## **Private Types**

enum GameState {
 Uninitialized, ShowingSplash, Paused, ShowingMenu,
 Playing, Exiting }

#### **Static Private Member Functions**

- static bool IsExiting ()
- static void GameLoop ()
- static void show\_back\_screen ()
- static void ShowMenu ()

## **Private Attributes**

• sf::Music music

## **Static Private Attributes**

- static GameState \_gameState = Uninitialized
- static sf::RenderWindow \_mainWindow
- static menager \_gameObjectManager
- static HUD \_hud

## 4.3.1 Detailed Description

Represents the game.

#### 4.3.2 Member Enumeration Documentation

## 4.3.2.1 GameState

```
enum Game::GameState [private]
```

Represents the various states that game can be in.

#### Enumerator

Uninitialized	
ShowingSplash	
Paused	
ShowingMenu	
Playing	
Exiting	

## 4.3.3 Member Function Documentation

## 4.3.3.1 GameLoop()

```
void Game::GameLoop ( ) [static], [private]
```

Start the game loop.

## 4.3.3.2 GetGameObjectManager()

```
const menager & Game::GetGameObjectManager ( ) [static]
```

Returns a member variables - 'menager' object.

## 4.3.3.3 GetInput()

```
const sf::Event & Game::GetInput ( ) [static]
```

Wait for an event and return it.

## 4.3.3.4 GetWindow()

```
sf::RenderWindow & Game::GetWindow ( ) [static]
```

Returns rendered window.

## 4.3.3.5 IsExiting()

```
bool Game::IsExiting ( ) [static], [private]
```

Checks if the game status has been changed to 'Exiting'.

#### Returns

The information about whether the game state is changed.

4.3 Game Class Reference 13

#### 4.3.3.6 show\_back\_screen()

```
void Game::show_back_screen ( ) [static], [private]
```

The function is responsible for creating and displaying the back screen.

## 4.3.3.7 ShowMenu()

```
void Game::ShowMenu ( ) [static], [private]
```

The function is responsible for creating and displaying the main menu.

## 4.3.3.8 Start()

Launch the game loop.

#### 4.3.4 Member Data Documentation

## 4.3.4.1 \_gameObjectManager

```
menager Game::_gameObjectManager [static], [private]
```

## 4.3.4.2 \_gameState

```
Game::GameState Game::_gameState = Uninitialized [static], [private]
```

#### 4.3.4.3 \_hud

```
HUD Game::_hud [static], [private]
```

## 4.3.4.4 \_mainWindow

```
sf::RenderWindow Game::_mainWindow [static], [private]
```

#### 4.3.4.5 music

```
sf::Music Game::music [private]
```

## 4.3.4.6 SCREEN\_HEIGHT

```
const int Game::SCREEN_HEIGHT = 768 [static]
```

#### 4.3.4.7 SCREEN\_WIDTH

```
const int Game::SCREEN_WIDTH = 1024 [static]
```

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

- · game.hpp
- game.cpp

## 4.4 HUD Class Reference

Responsible for creating and displaying the results of each player after losing the game by one of them.

```
#include <HUD.hpp>
```

Collaboration diagram for HUD:

## **Public Member Functions**

- HUD ()
- ∼HUD ()
- void SetPlayer (player\_paletka \*player)
- void SetPaletka (Paletka\_2 \*player2)
- void Show (sf::RenderWindow &window)

## **Private Attributes**

- sf::Font font
- sf::Text text
- player\_paletka \* player
- Paletka\_2 \* player2

## 4.4.1 Detailed Description

Responsible for creating and displaying the results of each player after losing the game by one of them.

4.4 HUD Class Reference 15

## 4.4.2 Constructor & Destructor Documentation

```
4.4.2.1 HUD()

HUD::HUD ( )

Create the HUD object.

4.4.2.2 ~HUD()

HUD::~HUD ( )
```

## 4.4.3 Member Function Documentation

## 4.4.3.1 SetPaletka()

Destroys objects.

Sets a Paletka\_2 pointer to an Paletka\_2 object.

## **Parameters**

player2 pointer to an object.

## 4.4.3.2 SetPlayer()

Sets a player\_paletka pointer to an player\_paletka object.

#### **Parameters**

player pointer to an object.

## 4.4.3.3 Show()

Function that draws and displays text in the background window after a lost game.

## **Parameters**

## 4.4.4 Member Data Documentation

## 4.4.4.1 font

```
sf::Font HUD::font [private]
```

## 4.4.4.2 player

```
player_paletka* HUD::player [private]
```

## 4.4.4.3 player2

```
Paletka_2* HUD::player2 [private]
```

## 4.4.4.4 text

```
sf::Text HUD::text [private]
```

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

- HUD.hpp
- HUD.cpp

## 4.5 MainMenu Class Reference

Is responsible for creating and displaying the main menu screen of the game and catches the mouse movement.

```
#include <MainMenu.hpp>
```

Collaboration diagram for MainMenu:

#### **Classes**

struct MenuItem

## **Public Types**

• enum MenuResult { Nothing, Exit, Play }

## **Public Member Functions**

• MenuResult Show (sf::RenderWindow &window)

#### **Private Member Functions**

- MenuResult GetMenuResponse (sf::RenderWindow &window)
- MenuResult HandleClick (int x, int y)

## **Private Attributes**

• std::list< MenuItem > \_menuItems

## 4.5.1 Detailed Description

Is responsible for creating and displaying the main menu screen of the game and catches the mouse movement.

#### 4.5.2 Member Enumeration Documentation

#### 4.5.2.1 MenuResult

enum MainMenu::MenuResult

Represents various possible return values the menu could return.

#### Enumerator

Nothing	
Exit	
Play	

## 4.5.3 Member Function Documentation

## 4.5.3.1 GetMenuResponse()

Function which correspond with the location of buttons physical locations within the main-menu image file.

## **Parameters**



## Returns

menu state.

## 4.5.3.2 HandleClick()

Function checks if any button has been pressed. If not, returns exit.

## **Parameters**

X	an integer variable which informs of the location of the mouse.
у	an integer variable which informs of the location of the mouse.

#### Returns

menu state.

#### 4.5.3.3 Show()

Function load a main-menu and create a sprite to display it.

## **Parameters**

window is a created wi	ndow.
------------------------	-------

#### Returns

the main-menu state from the GetMenuResponse function for a created window.

#### 4.5.4 Member Data Documentation

## 4.5.4.1 \_menultems

```
std::list<MenuItem> MainMenu::_menuItems [private]
```

A list of type MenuItem, which holds the various MenuItems that compose MainMenu.

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

- MainMenu.hpp
- MainMenu.cpp

## 4.6 menager Class Reference

Responspible for holding all of our visibe objects, being in charge of updating, drawing and then finally removing them.

```
#include <Menager.hpp>
```

Collaboration diagram for menager:

## Classes

• struct object\_delocation

## **Public Member Functions**

- menager ()
- ∼menager ()
- void Add (std::string name, visible\_obj \*gameObject)
- void Remove (std::string name)
- int GetObjectCount () const
- visible obj \* Get (std::string name) const
- void Update\_all ()
- void DrawAll (sf::RenderWindow &renderWindow)

#### **Private Attributes**

- std::map< std::string, visible obj \*> gameObjects
- sf::Clock clock

## 4.6.1 Detailed Description

Responspible for holding all of our visibe objects, being in charge of updating, drawing and then finally removing them.

#### 4.6.2 Constructor & Destructor Documentation

```
4.6.2.1 menager()
menager::menager ( )
```

Create the menager object.

```
4.6.2.2 ∼menager()
menager::∼menager ( )
```

Destroys objects.

## 4.6.3 Member Function Documentation

#### 4.6.3.1 Add()

```
void menager::Add (
          std::string name,
          visible_obj * gameObject )
```

Function creates map \_gameObjects which is composed of a collection of std::pair<> objects and adds one more.

## **Parameters**

name	a string which holds the name as the identifier.
gameObject	a Visible_obj pointer.

#### 4.6.3.2 DrawAll()

Function loops through all of the items stored within map and calls the Visible\_obj's Draw method.

## **Parameters**

1 146 1	
renderWindow	is a created window.

## 4.6.3.3 Get()

Function iterates through the map.

## **Parameters**

name	a string which holds the name as the identifier.
------	--

## Returns

second value from a pair collected in a map.

## 4.6.3.4 GetObjectCount()

```
int menager::GetObjectCount ( ) const
```

Function returns the size of the map.

## Returns

the number of items contained in the map.

#### 4.6.3.5 Remove()

```
void menager::Remove (
          std::string name )
```

Function deletes the pointer to the Visible\_obj\* referred to in results->second.

## **Parameters**

```
4.6.3.6 Update_all()
```

```
void menager::Update_all ( )
```

Function updates elapsed time of visible objects from a map.

## 4.6.4 Member Data Documentation

## 4.6.4.1 \_gameObjects

```
std::map<std::string, visible_obj*> menager::_gameObjects [private]
```

#### 4.6.4.2 clock

```
sf::Clock menager::clock [private]
```

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

- Menager.hpp
- Menager.cpp

## 4.7 MainMenu::MenuItem Struct Reference

```
#include <MainMenu.hpp>
```

Collaboration diagram for MainMenu::MenuItem:

## **Public Attributes**

- sf::Rect< int > rect
- · MenuResult action

## 4.7.1 Detailed Description

Struct that represents the individual menu items in the menu.

## 4.7.2 Member Data Documentation

#### 4.7.2.1 action

MenuResult MainMenu::MenuItem::action

#### 4.7.2.2 rect

```
sf::Rect<int> MainMenu::MenuItem::rect
```

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

· MainMenu.hpp

## 4.8 menager::object\_delocation Struct Reference

Collaboration diagram for menager::object\_delocation:

## **Public Member Functions**

• void operator() (const std::pair< std::string, visible\_obj \* > &p) const

## 4.8.1 Detailed Description

A struct which holds a functor to delete a Visible\_obj pointer.

## 4.8.2 Member Function Documentation

#### 4.8.2.1 operator()()

Overloaded function operator ().

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

· Menager.hpp

## 4.9 Paletka\_2 Class Reference

Creates the AI player's paddle.

```
#include <paletka_2.hpp>
```

Inheritance diagram for Paletka\_2:

Collaboration diagram for Paletka\_2:

#### **Public Member Functions**

- Paletka\_2 (void)
- ∼Paletka\_2 (void)
- void Update (float elapsedTime)
- void Draw (sf::RenderWindow &rw)
- float GetVelocity () const

## **Public Attributes**

• int score

## **Private Attributes**

- float \_velocity
- float \_maxVelocity
- float \_elapsedTimeSinceStart

## **Additional Inherited Members**

## 4.9.1 Detailed Description

Creates the Al player's paddle.

## 4.9.2 Constructor & Destructor Documentation

## 4.9.2.1 Paletka\_2()

Create the Paletka\_2 object.

#### 4.9.2.2 $\sim$ Paletka\_2()

```
Paletka_2::~Paletka_2 ( void )
```

Destroys objects.

## 4.9.3 Member Function Documentation

## 4.9.3.1 Draw()

Function draw a rendered window.

#### **Parameters**

rw is a created window.

## 4.9.3.2 GetVelocity()

```
float Paletka_2::GetVelocity ( ) const
```

Function gets the velocity of the object.

## Returns

a float variable which represents a velocity of the paddle.

## 4.9.3.3 Update()

Override Update() function from the base class visible\_obj. Checks if the arrows are pressed, changes the speed of the paddle.

#### **Parameters**

elapsedTime elapsed since the last frame.
---

Reimplemented from visible\_obj.

#### 4.9.4 Member Data Documentation

## 4.9.4.1 \_elapsedTimeSinceStart

```
float Paletka_2::_elapsedTimeSinceStart [private]
```

## 4.9.4.2 \_maxVelocity

```
float Paletka_2::_maxVelocity [private]
```

## 4.9.4.3 \_velocity

```
float Paletka_2::_velocity [private]
```

#### 4.9.4.4 score

```
int Paletka_2::score
```

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

- paletka\_2.hpp
- paletka\_2.cpp

## 4.10 player\_paletka Class Reference

Creates the player's paddle.

```
#include <player_paletka.hpp>
```

Inheritance diagram for player\_paletka:

Collaboration diagram for player\_paletka:

## **Public Member Functions**

- player\_paletka ()
- ~player\_paletka ()
- void Update (float elapsedTime)
- void Draw (sf::RenderWindow &rw)
- float GetVelocity () const

## **Public Attributes**

• int score

## **Private Attributes**

- · float \_velocity
- float \_maxVelocity

#### **Additional Inherited Members**

## 4.10.1 Detailed Description

Creates the player's paddle.

## 4.10.2 Constructor & Destructor Documentation

## 4.10.2.1 player\_paletka()

```
player_paletka::player_paletka ( )
```

Create the player\_paddle object.

## 4.10.2.2 ~player\_paletka()

```
player_paletka::\simplayer_paletka ( )
```

Destroys objects.

## 4.10.3 Member Function Documentation

## 4.10.3.1 Draw()

Function draw a rendered window.

#### **Parameters**

rw is a created window.

## 4.10.3.2 GetVelocity()

```
float player_paletka::GetVelocity ( ) const
```

Function gets the velocity of the object.

## Returns

a float variable which represents a velocity of the paddle.

## 4.10.3.3 Update()

Override Update() function from the base class visible\_obj. Checks if the arrows are pressed, changes the speed of the paddle.

#### **Parameters**

Reimplemented from visible\_obj.

#### 4.10.4 Member Data Documentation

```
4.10.4.1 _maxVelocity
float player_paletka::_maxVelocity [private]

4.10.4.2 _velocity
float player_paletka::_velocity [private]

4.10.4.3 score
```

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

• player\_paletka.hpp

int player\_paletka::score

player\_paletka.cpp

# 4.11 visible\_obj Class Reference

Represents an item in the world that needs to be drawn, such as the player's paddle or the game's ball.

```
#include <Visible_obj.hpp>
```

Inheritance diagram for visible\_obj:

Collaboration diagram for visible\_obj:

## **Public Member Functions**

- visible obj ()
- virtual ~visible\_obj ()
- virtual void load (std::string filename)
- virtual void drawing (sf::RenderWindow &window)
- virtual void Update (float elapsedTime)
- virtual void set\_position (float x, float y)
- virtual sf::Vector2f GetPosition () const
- · virtual bool IsLoaded () const
- virtual float GetWidth () const
- virtual float GetHeight () const
- virtual sf::Rect< float > GetBoundingRect () const

30 Class Documentation

# **Protected Member Functions**

• sf::Sprite & GetSprite ()

#### **Private Attributes**

```
• sf::Sprite sprite_
```

- sf::Texture image
- std::string file\_name
- bool is\_loaded

# 4.11.1 Detailed Description

Represents an item in the world that needs to be drawn, such as the player's paddle or the game's ball.

### 4.11.2 Constructor & Destructor Documentation

```
4.11.2.1 visible_obj()
visible_obj::visible_obj ( )
Create the visible_obj object.
4.11.2.2 ~visible_obj()
visible_obj::~visible_obj ( ) [virtual]
```

# 4.11.3 Member Function Documentation

# 4.11.3.1 drawing()

Destroys objects.

```
void visible_obj::drawing (
          sf::RenderWindow & window ) [virtual]
```

Function draw a sprite if possible.

#### **Parameters**

window	is a created window.
VVIIIUUVV	i is a created willdow.

# 4.11.3.2 GetBoundingRect()

```
sf::Rect< float > visible_obj::GetBoundingRect ( ) const [virtual]
```

Gets the global bounding rectangle of the sprite.

#### Returns

the bounds of the sprite in the coordinate system.

### 4.11.3.3 GetHeight()

```
float visible_obj::GetHeight ( ) const [virtual]
```

Gets the height of the sprite.

#### Returns

the bounds of the sprite in the coordinate system.

### 4.11.3.4 GetPosition()

```
sf::Vector2f visible_obj::GetPosition ( ) const [virtual]
```

Gets position of the sprite.

# Returns

a mathematical vector with two coordinates (x and y) or current rotation of the object, in degrees.

# 4.11.3.5 GetSprite()

```
sf::Sprite & visible_obj::GetSprite ( ) [protected]
```

Gets the sprite.

## Returns

the sprite.

32 Class Documentation

### 4.11.3.6 GetWidth()

```
float visible_obj::GetWidth ( ) const [virtual]
```

Gets the width of the sprite.

#### Returns

the bounds of the sprite in the coordinate system.

# 4.11.3.7 IsLoaded()

```
bool visible_obj::IsLoaded ( ) const [virtual]
```

Informs if the file was loaded correctly.

#### Returns

a bool variable, which is true or false, depending on whether the file was loaded without any problem.

### 4.11.3.8 load()

Function checks if loading a file is possible.

### **Parameters**

fi	lename	the name of the file that is loaded into the image.
----	--------	---

# 4.11.3.9 set\_position()

```
void visible_obj::set_position ( \label{eq:float x, float x, float y, flo
```

Sets position of the sprite.

#### **Parameters**

X	is a float variable which informs of the location of the sprite.
У	is a float variable which informs of the location of the sprite.

#### 4.11.3.10 Update()

Call update for all game objects

#### **Parameters**

elapsedTime	elapsed time since the last frame
0.00/0.000.0000	

Reimplemented in Paletka\_2, player\_paletka, and Ball.

## 4.11.4 Member Data Documentation

# 4.11.4.1 file\_name

```
std::string visible_obj::file_name [private]
```

#### 4.11.4.2 image\_

```
sf::Texture visible_obj::image_ [private]
```

# 4.11.4.3 is\_loaded

```
bool visible_obj::is_loaded [private]
```

### 4.11.4.4 sprite\_

```
sf::Sprite visible_obj::sprite_ [private]
```

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

- Visible\_obj.hpp
- · Visible\_obj.cpp

34 Class Documentation

# **Chapter 5**

# **File Documentation**

# 5.1 back\_screen.cpp File Reference

```
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
#include <map>
#include <iostream>
#include <cassert>
#include "back_screen.hpp"
Include dependency graph for back screen.cpp:
```

# 5.2 back\_screen.hpp File Reference

The file contains class which displays the back screen of the game.

```
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
#include <map>
#include <iostream>
#include <cassert>
```

Include dependency graph for back screen.hpp: This graph shows which files directly or indirectly include this file:

#### Classes

class back\_screen

Is responsible for creating and displaying the back screen of the game.

### 5.2.1 Detailed Description

The file contains class which displays the back screen of the game.

Author

Oliwia Mlonek

# 5.3 Ball.cpp File Reference

```
#include "Ball.hpp"
#include "game.hpp"
#include "Menager.hpp"
#include "Visible_obj.hpp"
#include <cmath>
#include <SFML/Audio.hpp>
Include dependency graph for Ball.cpp:
```

# 5.4 Ball.hpp File Reference

The file contains class which manipulate the game ball object.

```
#include <iostream>
#include "Visible_obj.hpp"
#include "Menager.hpp"
#include "game.hpp"
```

Include dependency graph for Ball.hpp: This graph shows which files directly or indirectly include this file:

#### Classes

· class Ball

Responsible for creating a ball object and manipulating it.

### 5.4.1 Detailed Description

The file contains class which manipulate the game ball object.

Author

Oliwia Mlonek

# 5.5 game.cpp File Reference

```
#include "MainMenu.hpp"
#include "back_screen.hpp"
#include "player_paletka.hpp"
#include "Visible_obj.hpp"
#include "Ball.hpp"
#include "paletka_2.hpp"
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
#include <map>
#include <iostream>
#include <cassert>
Include dependency graph for game.cpp:
```

# 5.6 game.hpp File Reference

The file contains entirely static class 'Game'.

```
#include <SFML/Window.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Audio.hpp>
#include "player_paletka.hpp"
#include "paletka_2.hpp"
#include "Visible_obj.hpp"
#include "Menager.hpp"
#include "HUD.hpp"
```

Include dependency graph for game.hpp: This graph shows which files directly or indirectly include this file:

### Classes

· class Game

Represents the game.

# 5.6.1 Detailed Description

The file contains entirely static class 'Game'.

**Author** 

Oliwia Mlonek

# 5.7 HUD.cpp File Reference

```
#include "HUD.hpp"
#include "game.hpp"
#include "player_paletka.hpp"
#include "paletka_2.hpp"
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
#include <iostream>
Include dependency graph for HUD.cpp:
```

# 5.8 HUD.hpp File Reference

```
#include <iostream>
#include "player_paletka.hpp"
#include "paletka_2.hpp"
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
```

Include dependency graph for HUD.hpp: This graph shows which files directly or indirectly include this file:

#### Classes

• class HUD

Responsible for creating and displaying the results of each player after losing the game by one of them.

#### 5.9 main.cpp File Reference

```
#include "game.hpp"
#include "back_screen.hpp"
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
#include <map>
#include <iostream>
#include <cassert>
```

Include dependency graph for main.cpp:

### **Functions**

• int main (int argc, const char \*argv[])

#### 5.9.1 Function Documentation

### 5.9.1.1 main()

```
int main (
            int argc,
            const char * argv[])
```

#### MainMenu.cpp File Reference 5.10

```
#include "MainMenu.hpp"
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
#include <map>
#include <iostream>
#include <cassert>
Include dependency graph for MainMenu.cpp:
```

# 5.11 MainMenu.hpp File Reference

The file contains class which displays the main menu screen of the game.

```
#include <stdio.h>
#include <SFML/Window.hpp>
#include <SFML/Graphics.hpp>
#include <list>
```

Include dependency graph for MainMenu.hpp: This graph shows which files directly or indirectly include this file:

#### Classes

class MainMenu

Is responsible for creating and displaying the main menu screen of the game and catches the mouse movement.

· struct MainMenu::MenuItem

### 5.11.1 Detailed Description

The file contains class which displays the main menu screen of the game.

**Author** 

Oliwia Mlonek

# 5.12 Menager.cpp File Reference

```
#include "Menager.hpp"
#include "Visible_obj.hpp"
#include "game.hpp"
#include <iostream>
#include <map>
#include <cassert>
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
Include dependency graph for Menager.cpp:
```

# 5.13 Menager.hpp File Reference

The file contains class which manipulate the visible obejcts.

```
#include "Visible_obj.hpp"
#include <iostream>
#include <map>
#include <cassert>
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
```

Include dependency graph for Menager.hpp: This graph shows which files directly or indirectly include this file:

#### Classes

· class menager

Responspible for holding all of our visibe objects, being in charge of updating, drawing and then finally removing them.

· struct menager::object\_delocation

#### 5.13.1 Detailed Description

The file contains class which manipulate the visible obejcts.

**Author** 

Oliwia Mlonek

# 5.14 paletka\_2.cpp File Reference

```
#include "paletka_2.hpp"
#include "game.hpp"
#include "Ball.hpp"
#include "Visible_obj.hpp"
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
Include dependency graph for paletka_2.cpp:
```

# 5.15 paletka\_2.hpp File Reference

The file contains class which manipulate the Al player paddle object.

```
#include <iostream>
#include "Visible_obj.hpp"
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
```

Include dependency graph for paletka 2.hpp: This graph shows which files directly or indirectly include this file:

### **Classes**

• class Paletka 2

Creates the AI player's paddle.

# 5.15.1 Detailed Description

The file contains class which manipulate the Al player paddle object.

Author

Oliwia Mlonek

# 5.16 player\_paletka.cpp File Reference

```
#include "player_paletka.hpp"
#include "Visible_obj.hpp"
#include "game.hpp"
#include "MainMenu.hpp"
#include "back_screen.hpp"
#include <iostream>
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
Include dependency graph for player_paletka.cpp:
```

# 5.17 player\_paletka.hpp File Reference

The file contains class which manipulate the player paddle object.

```
#include <iostream>
#include "Visible_obj.hpp"
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
```

Include dependency graph for player\_paletka.hpp: This graph shows which files directly or indirectly include this file:

## Classes

· class player\_paletka

Creates the player's paddle.

# 5.17.1 Detailed Description

The file contains class which manipulate the player paddle object.

**Author** 

Oliwia Mlonek

# 5.18 Visible\_obj.cpp File Reference

```
#include "Visible_obj.hpp"
#include "game.hpp"
#include "MainMenu.hpp"
#include "back_screen.hpp"
#include <iostream>
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
Include dependency graph for Visible_obj.cpp:
```

# 5.19 Visible\_obj.hpp File Reference

The file contains class which displays the objects such as ball or paddles.

```
#include <iostream>
#include <SFML/System.hpp>
#include <SFML/Graphics.hpp>
#include <SFML/Window.hpp>
#include <SFML/Audio.hpp>
```

Include dependency graph for Visible\_obj.hpp: This graph shows which files directly or indirectly include this file:

### Classes

· class visible\_obj

Represents an item in the world that needs to be drawn, such as the player's paddle or the game's ball.

# 5.19.1 Detailed Description

The file contains class which displays the objects such as ball or paddles.

Author

Oliwia Mlonek