VBugs Chapter 9 Code Solutions

### Code added to the solution is indicated below by grey shading.

### 1. More Sounds

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| Public Sub Penalty()  Audio.PlaySoundEffect(GameSound("penalty"))  For i As Integer = 1 To 25  …  Public Sub DrawLoser()  Audio.PlaySoundEffect(GameSound("gameover"))  Do … |

### 2. Backgrounds

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| --- |
| Public time As Integer  Private bgNumber As Integer  …  Do  SwinGame.Graphics.ClearScreen(Color.White)    Graphics.DrawBitmap(GameImage("background" & bgNumber), 0, 0)  …  If EndOfLevel() = True Then  level = level + 1  If bgNumber > 2 Then  bgNumber = 1  Else  bgNumber = bgNumber + 1  End If  LevelSetUp()  End If |

### 3. Pausing the Game

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| Public Sub Pause()  Audio.PlaySoundEffect(GameSound("pause"))  Core.PauseTimer(gameTimer)  Do  Graphics.FillRectangle(Color.FromArgb(5, 66, 66,  255), 0, 0, 800, 600)  Graphics.DrawBitmap(GameImage("instructions"), 50,  50)  Core.RefreshScreen(25)  Core.ProcessEvents()  Loop Until Input.WasKeyTyped(Keys.VK\_P) Or  SwinGame.Core.WindowCloseRequested() = True  Core.UnpauseTimer(gameTimer)  End Sub  …  Do  If Input.WasKeyTyped(SwinGame.Keys.VK\_P) Then  Pause()  End If |

### 4. Bonus Score and Time

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| --- |
| Private bgNumber As Integer  Private bonusScore As Integer  …    Public Sub Bonus()  Select Case bugsKilled  Case 5  bonusScore = 100  score = score + bonusScore  BonusScreen()  Case 10  bonusScore = 500  score = score + bonusScore  BonusScreen()  Case 20  bonusScore = 1000  score = score + bonusScore  BonusScreen()  Case 30  bonusScore = 1500  score = score + bonusScore  BonusScreen()  Case 40  bonusScore = 2000  score = score + bonusScore  BonusScreen()  Case 50  bonusScore = 5000  score = score + bonusScore  BonusScreen()  End Select  End Sub  …  Public Sub BonusScreen()  Core.StopTimer(gameTimer)  Audio.PlaySoundEffect(GameSound("bonus"))  For i As Integer = 1 To 25  Graphics.FillRectangle(Color.FromArgb(5, 0, 0, 255),  0, 0, 800, 600)  Text.DrawText(bugsKilled & " Bugs Killed!! ",  Color.Black, GameFont("bear"), 150, 200)  Text.DrawText("+ " & bonusScore, Color.Black,  GameFont("cat\_scratch"), 330, 300)  Core.RefreshScreen(25)  Core.ProcessEvents()  Next  Core.StartTimer(gameTimer)  End Sub |

### 5. Flapping Wings

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| --- |
| Public Sub New()  Alive = True  AliveSprite = Graphics.CreateSprite(GameImage("bugFly"),  30, 5, 40, 40)  AliveSprite.X = Rnd() \* (800 - AliveSprite.Width) |

### 6. Changing Music

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| --- |
| Private bonusScore As Integer  Private trackNumber As Integer  …  Public Sub NextTrack()  If trackNumber < 3 Then  trackNumber = trackNumber + 1  Audio.PlayMusic(GameMusic("track" & trackNumber), -1)  Else  trackNumber = 1  Audio.PlayMusic(GameMusic("track" & trackNumber), -1)  End If  End Sub  …  If Input.WasKeyTyped(SwinGame.Keys.VK\_RIGHT) Then  NextTrack()  End If |

### 7. Animated Target

|  |
| --- |
| Private trackNumber As Integer  Private targetShoot As Sprite  Private zapNow As Boolean  Public Sub DrawMouse()  Dim mousePoint As Point2D  mousePoint = Input.GetMousePosition()  If Input.MouseWasClicked(MouseButton.LeftButton) Then  Audio.PlaySoundEffect(GameSound("zap"))  ZapNow = True  End If  If ZapNow = True Then  Graphics.DrawSprite(targetShoot, mousePoint.X - 20,  mousePoint.Y - 20)  Graphics.UpdateSpriteAnimation(targetShoot)  If targetShoot.CurrentFrame = 6 Then  ZapNow = False  End If  Else  Graphics.DrawSprite(targetShoot, mousePoint.X - 20,  mousePoint.Y - 20)  targetShoot.CurrentFrame = 0  End If  End Sub |