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**Programmierreferenz**

**PacMan Multiplayerspiel**

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[Update Method](#frlrfPacManClientControllerLocalPlayerControllerClassUpdateTopic)

## 

## PacManClient Namespace

## Classes

[Camera](#frlrfPacManClientCameraClassTopic), [ClientGameTime](#frlrfPacManClientClientGameTimeClassTopic), [PacManGame](#frlrfPacManClientPacManGameClassTopic)

### Camera Class

[System.Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)

**PacManClient.Camera**

|  |
| --- |
| [Visual Basic]  **Public Class Camera** |

|  |
| --- |
| [C#]  **public class Camera** |

|  |
| --- |
| [C++]  **public ref class Camera** |

|  |
| --- |
| [JScript]  **public class Camera** |

## Requirements

**Namespace:** [PacManClient](#frlrfPacManClient)

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

**Assembly:** PacMan (in PacMan.exe)

## Constructors

[Camera Constructor](#frlrfPacManClientCameraClassctorTopic)

## Properties

[Center](#frlrfPacManClientCameraClassCenterTopic), [GraphicsDevice](#frlrfPacManClientCameraClassGraphicsDeviceTopic), [IsStatic](#frlrfPacManClientCameraClassIsStaticTopic), [Position](#frlrfPacManClientCameraClassPositionTopic), [Rotation](#frlrfPacManClientCameraClassRotationTopic), [Zoom](#frlrfPacManClientCameraClassZoomTopic)

## Methods

[Equals](http://msdn.microsoft.com/en-us/library/system.object.equals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [Finalize](http://msdn.microsoft.com/en-us/library/system.object.finalize.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetHashCode](http://msdn.microsoft.com/en-us/library/system.object.gethashcode.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetTransformation](#frlrfPacManClientCameraClassGetTransformationTopic), [GetType](http://msdn.microsoft.com/en-us/library/system.object.gettype.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [MemberwiseClone](http://msdn.microsoft.com/en-us/library/system.object.memberwiseclone.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [Move](#frlrfPacManClientCameraClassMoveTopic), [ReferenceEquals](http://msdn.microsoft.com/en-us/library/system.object.referenceequals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ToString](http://msdn.microsoft.com/en-us/library/system.object.tostring.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [Update](#frlrfPacManClientCameraClassUpdateTopic)

#### Camera Constructor (System.Single, System.Single, PacManShared.Entities.Player.MovableObject, Microsoft.Xna.Framework.Graphics.GraphicsDevice)

Constructor for a camera following an object

|  |
| --- |
| [Visual Basic]  **Public Sub New( \_  ByVal *zoom* As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**, \_  ByVal *rotation* As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**, \_  ByVal *followingObject* As MovableObject, \_  ByVal *graphicsDevice* As** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public Camera(** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***zoom*,** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***rotation*,  MovableObject *followingObject*,** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx) ***graphicsDevice* )** |

|  |
| --- |
| [C++]  **public:  Camera(** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***zoom*,** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***rotation*,  MovableObject^ *followingObject*,** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx)**^ *graphicsDevice* )** |

|  |
| --- |
| [JScript]  **public function Camera(  *zoom* :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**,  *rotation* :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**,  *followingObject* : MovableObject,  *graphicsDevice* :** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx) **);** |

## Parameters

*zoom*

Zoom factor

*rotation*

Rotation in radians

*followingObject*

The object the camera has to follow

*graphicsDevice*

A graphics device

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera Constructor (System.Single, Microsoft.Xna.Framework.Vector2, System.Single, System.Boolean)

Basic constructor

|  |
| --- |
| [Visual Basic]  **Public Sub New( \_  ByVal *zoom* As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**, \_  ByVal *position* As** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx)**, \_  ByVal *rotation* As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**, \_  ByVal *isStatic* As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public Camera(** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***zoom*,** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) ***position*,** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***rotation*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***isStatic* )** |

|  |
| --- |
| [C++]  **public:  Camera(** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***zoom*,** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) ***position*,** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***rotation*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***isStatic* )** |

|  |
| --- |
| [JScript]  **public function Camera(  *zoom* :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**,  *position* :** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx)**,  *rotation* :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**,  *isStatic* :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **);** |

## Parameters

*zoom*

Zoom factor

*position*

On-screen position

*rotation*

Rotation in radians

*isStatic*

If this camera is static

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera Constructor (System.Single, Microsoft.Xna.Framework.Vector2, System.Single, System.Boolean, Microsoft.Xna.Framework.Graphics.GraphicsDevice)

Constructor for a static camera

|  |
| --- |
| [Visual Basic]  **Public Sub New( \_  ByVal *zoom* As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**, \_  ByVal *position* As** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx)**, \_  ByVal *rotation* As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**, \_  ByVal *isStatic* As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**, \_  ByVal *graphicsDevice* As** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public Camera(** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***zoom*,** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) ***position*,** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***rotation*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***isStatic*,** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx) ***graphicsDevice* )** |

|  |
| --- |
| [C++]  **public:  Camera(** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***zoom*,** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) ***position*,** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***rotation*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***isStatic*,** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx)**^ *graphicsDevice* )** |

|  |
| --- |
| [JScript]  **public function Camera(  *zoom* :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**,  *position* :** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx)**,  *rotation* :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**,  *isStatic* :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**,  *graphicsDevice* :** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx) **);** |

## Parameters

*zoom*

Zoom factor

*position*

On-screen position

*rotation*

Rotation in radians

*isStatic*

If the camera stays at the same place the whole time

*graphicsDevice*

A graphics device

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera Constructor

Empty Constructor

|  |
| --- |
| [Visual Basic]  **Public Sub New()** |

|  |
| --- |
| [C#]  **public Camera()** |

|  |
| --- |
| [C++]  **public:  Camera()** |

|  |
| --- |
| [JScript]  **public function Camera();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera.Center Property

Gets or sets the center of the camera

|  |
| --- |
| [Visual Basic]  **Public Property Center() As** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) |

|  |
| --- |
| [C#]  **public** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **Center {get; set;}** |

|  |
| --- |
| [C++]  **public:  property** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **Center {** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **get( );  void set(** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get Center() :** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx)**; public function set Center(value :** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera.GraphicsDevice Property

Gets or sets the graphicsdevice

|  |
| --- |
| [Visual Basic]  **Public Property GraphicsDevice() As** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx) |

|  |
| --- |
| [C#]  **public** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx) **GraphicsDevice {get; set;}** |

|  |
| --- |
| [C++]  **public:  property** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx)**^ GraphicsDevice {** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx)**^ get( );  void set(** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx)**^ value  ); }** |

|  |
| --- |
| [JScript]  **public function get GraphicsDevice() :** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx)**; public function set GraphicsDevice(value :** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera.IsStatic Property

Gets or sets the static field of the camera

|  |
| --- |
| [Visual Basic]  **Public Property IsStatic() As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsStatic {get; set;}** |

|  |
| --- |
| [C++]  **public:  property** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsStatic {** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **get( );  void set(** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get IsStatic() :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**; public function set IsStatic(value :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera.Position Property

Gets or sets the position of the camera

|  |
| --- |
| [Visual Basic]  **Public Property Position() As** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) |

|  |
| --- |
| [C#]  **public** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **Position {get; set;}** |

|  |
| --- |
| [C++]  **public:  property** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **Position {** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **get( );  void set(** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get Position() :** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx)**; public function set Position(value :** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera.Rotation Property

Gets or sets the rotation in radians

|  |
| --- |
| [Visual Basic]  **Public Property Rotation() As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx) |

|  |
| --- |
| [C#]  **public** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **Rotation {get; set;}** |

|  |
| --- |
| [C++]  **public:  property** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **Rotation {** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **get( );  void set(** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get Rotation() :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**; public function set Rotation(value :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera.Zoom Property

Gets or sets the zoom for the camera

|  |
| --- |
| [Visual Basic]  **Public Property Zoom() As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx) |

|  |
| --- |
| [C#]  **public** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **Zoom {get; set;}** |

|  |
| --- |
| [C++]  **public:  property** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **Zoom {** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **get( );  void set(** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get Zoom() :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**; public function set Zoom(value :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera.GetTransformation Method

Gets a transformation matrix for the next move

|  |
| --- |
| [Visual Basic]  **Public Function GetTransformation( \_  ByVal *graphicsDevice* As** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx) **\_ ) As** [**Matrix**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.matrix.aspx) |

|  |
| --- |
| [C#]  **public** [**Matrix**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.matrix.aspx) **GetTransformation(** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx) ***graphicsDevice* )** |

|  |
| --- |
| [C++]  **public:** [**Matrix**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.matrix.aspx) **GetTransformation(** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx)**^ *graphicsDevice* )** |

|  |
| --- |
| [JScript]  **public function GetTransformation(  *graphicsDevice* :** [**GraphicsDevice**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.graphicsdevice.aspx) **) :** [**Matrix**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.matrix.aspx)**;** |

## Parameters

*graphicsDevice*

A graphics device

## Returns

A transformation matrix

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera.Move Method

Adds a Vector2 to the current cameraposition

|  |
| --- |
| [Visual Basic]  **Public Sub Move( \_  ByVal *amount* As** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Move(** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) ***amount* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Move(** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) ***amount* )** |

|  |
| --- |
| [JScript]  **public function Move(  *amount* :** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **);** |

## Parameters

*amount*

The Vector2 to add

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

#### Camera.Update Method

Updates the camera

|  |
| --- |
| [Visual Basic]  **Public Sub Update()** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update()** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update()** |

|  |
| --- |
| [JScript]  **public function Update();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [Camera](#frlrfPacManClientCameraClassTopic)

### ClientGameTime Class

[System.Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)

**PacManClient.ClientGameTime**

|  |
| --- |
| [Visual Basic]  **Public Class ClientGameTime  Implements IGameTime** |

|  |
| --- |
| [C#]  **public class ClientGameTime : IGameTime** |

|  |
| --- |
| [C++]  **public ref class ClientGameTime : public IGameTime** |

|  |
| --- |
| [JScript]  **public class ClientGameTime  implements IGameTime** |

## Requirements

**Namespace:** [PacManClient](#frlrfPacManClient)

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

**Assembly:** PacMan (in PacMan.exe)

## Constructors

[ClientGameTime Constructor](#frlrfPacManClientClientGameTimeClassctorTopic)

## Properties

[ElapsedGameTime](#frlrfPacManClientClientGameTimeClassElapsedGameTimeTopic), [IsRunningSlowly](#frlrfPacManClientClientGameTimeClassIsRunningSlowlyTopic), [TotalGameTime](#frlrfPacManClientClientGameTimeClassTotalGameTimeTopic)

## Methods

[Equals](http://msdn.microsoft.com/en-us/library/system.object.equals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [Finalize](http://msdn.microsoft.com/en-us/library/system.object.finalize.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetHashCode](http://msdn.microsoft.com/en-us/library/system.object.gethashcode.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetType](http://msdn.microsoft.com/en-us/library/system.object.gettype.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [MemberwiseClone](http://msdn.microsoft.com/en-us/library/system.object.memberwiseclone.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ReferenceEquals](http://msdn.microsoft.com/en-us/library/system.object.referenceequals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ToString](http://msdn.microsoft.com/en-us/library/system.object.tostring.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx))

#### ClientGameTime Constructor

Initializes a new instance of the [ClientGameTime](#frlrfPacManClientClientGameTimeClassTopic) class.

|  |
| --- |
| [Visual Basic]  **Public Sub New( \_  ByVal *gameTime* As** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public ClientGameTime(** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) ***gameTime* )** |

|  |
| --- |
| [C++]  **public:  ClientGameTime(** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx)**^ *gameTime* )** |

|  |
| --- |
| [JScript]  **public function ClientGameTime(  *gameTime* :** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) **);** |

## Parameters

*gameTime*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ClientGameTime](#frlrfPacManClientClientGameTimeClassTopic)

#### ClientGameTime.ElapsedGameTime Property

Gets .

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property ElapsedGameTime() As** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) |

|  |
| --- |
| [C#]  **public** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **ElapsedGameTime {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **ElapsedGameTime {** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **get( ); }** |

|  |
| --- |
| [JScript]  **public function get ElapsedGameTime() :** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ClientGameTime](#frlrfPacManClientClientGameTimeClassTopic)

#### ClientGameTime.IsRunningSlowly Property

Gets a value indicating whether this instance .

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property IsRunningSlowly() As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsRunningSlowly {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsRunningSlowly {** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **get( ); }** |

|  |
| --- |
| [JScript]  **public function get IsRunningSlowly() :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**;** |

## Property Value

**true** if this instance ; otherwise, **false**.

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ClientGameTime](#frlrfPacManClientClientGameTimeClassTopic)

#### ClientGameTime.TotalGameTime Property

Gets .

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property TotalGameTime() As** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) |

|  |
| --- |
| [C#]  **public** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **TotalGameTime {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **TotalGameTime {** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **get( ); }** |

|  |
| --- |
| [JScript]  **public function get TotalGameTime() :** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ClientGameTime](#frlrfPacManClientClientGameTimeClassTopic)

### PacManGame Class

This is the main type for your game

[System.Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)

[Microsoft.Xna.Framework.Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)

**PacManClient.PacManGame**

|  |
| --- |
| [Visual Basic]  **Public Class PacManGame  Inherits** [**Game**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx) |

|  |
| --- |
| [C#]  **public class PacManGame :** [**Game**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx) |

|  |
| --- |
| [C++]  **public ref class PacManGame : public** [**Game**](http://msdn.microsoft.com/en-us/library/microsoft::xna::framework::game.aspx)**^** |

|  |
| --- |
| [JScript]  **public class PacManGame  extends** [**Game**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx) |

## Requirements

**Namespace:** [PacManClient](#frlrfPacManClient)

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

**Assembly:** PacMan (in PacMan.exe)

## Constructors

[PacManGame Constructor](#frlrfPacManClientPacManGameClassctorTopic)

## Properties

[Components](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.components.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Content](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.content.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [GraphicsDevice](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.graphicsdevice.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [InactiveSleepTime](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.inactivesleeptime.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [IsActive](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.isactive.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [IsFixedTimeStep](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.isfixedtimestep.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [IsMouseVisible](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.ismousevisible.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [LaunchParameters](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.launchparameters.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Services](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.services.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [TargetElapsedTime](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.targetelapsedtime.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Window](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.window.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx))

## Methods

[BeginDraw](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.begindraw.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [BeginRun](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.beginrun.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Dispose](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.dispose.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Draw](#frlrfPacManClientPacManGameClassDrawTopic), [EndDraw](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.enddraw.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [EndRun](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.endrun.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Equals](http://msdn.microsoft.com/en-us/library/system.object.equals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [Exit](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.exit.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Finalize](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.finalize.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Initialize](#frlrfPacManClientPacManGameClassInitializeTopic), [LoadContent](#frlrfPacManClientPacManGameClassLoadContentTopic), [OnActivated](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.onactivated.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [OnDeactivated](#frlrfPacManClientPacManGameClassOnDeactivatedTopic), [OnExiting](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.onexiting.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [ResetElapsedTime](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.resetelapsedtime.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Run](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.run.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [RunOneFrame](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.runoneframe.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [ShowMissingRequirementMessage](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.showmissingrequirementmessage.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [SuppressDraw](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.suppressdraw.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Tick](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.tick.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [ToString](http://msdn.microsoft.com/en-us/library/system.object.tostring.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [UnloadContent](#frlrfPacManClientPacManGameClassUnloadContentTopic), [Update](#frlrfPacManClientPacManGameClassUpdateTopic)

## Events

[Activated](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.activated.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Deactivated](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.deactivated.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Disposed](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.disposed.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx)), [Exiting](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.exiting.aspx) (inherited from [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.game.aspx))

#### PacManGame Constructor

Creates a new Instance of PacManGame

|  |
| --- |
| [Visual Basic]  **Public Sub New()** |

|  |
| --- |
| [C#]  **public PacManGame()** |

|  |
| --- |
| [C++]  **public:  PacManGame()** |

|  |
| --- |
| [JScript]  **public function PacManGame();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PacManGame](#frlrfPacManClientPacManGameClassTopic)

#### PacManGame.Draw Method

This is called when the game should draw itself.

|  |
| --- |
| [Visual Basic]  **Protected Overrides Sub Draw( \_  ByVal *gameTime* As** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) **\_ )** |

|  |
| --- |
| [C#]  **protected override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Draw(** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) ***gameTime* )** |

|  |
| --- |
| [C++]  **protected:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Draw(** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx)**^ *gameTime* )** |

|  |
| --- |
| [JScript]  **protected function Draw(  *gameTime* :** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) **);** |

## Parameters

*gameTime*

Provides a snapshot of timing values.

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PacManGame](#frlrfPacManClientPacManGameClassTopic)

#### PacManGame.Initialize Method

Allows the game to perform any initialization it needs to before starting to run. This is where it can query for any required services and load any non-graphic related content. Calling base.Initialize will enumerate through any components and initialize them as well.

|  |
| --- |
| [Visual Basic]  **Protected Overrides Sub Initialize()** |

|  |
| --- |
| [C#]  **protected override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Initialize()** |

|  |
| --- |
| [C++]  **protected:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Initialize()** |

|  |
| --- |
| [JScript]  **protected function Initialize();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PacManGame](#frlrfPacManClientPacManGameClassTopic)

#### PacManGame.LoadContent Method

LoadContent will be called once per game and is the place to load all of your content.

|  |
| --- |
| [Visual Basic]  **Protected Overrides Sub LoadContent()** |

|  |
| --- |
| [C#]  **protected override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **LoadContent()** |

|  |
| --- |
| [C++]  **protected:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **LoadContent()** |

|  |
| --- |
| [JScript]  **protected function LoadContent();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PacManGame](#frlrfPacManClientPacManGameClassTopic)

#### PacManGame.OnDeactivated Method

|  |
| --- |
| [Visual Basic]  **Protected Overrides Sub OnDeactivated( \_  ByVal *sender* As** [**Object**](http://msdn.microsoft.com/en-us/library/system.object.aspx)**, \_  ByVal *args* As** [**EventArgs**](http://msdn.microsoft.com/en-us/library/system.eventargs.aspx) **\_ )** |

|  |
| --- |
| [C#]  **protected override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **OnDeactivated(** [**object**](http://msdn.microsoft.com/en-us/library/system.object.aspx) ***sender*,** [**EventArgs**](http://msdn.microsoft.com/en-us/library/system.eventargs.aspx) ***args* )** |

|  |
| --- |
| [C++]  **protected:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **OnDeactivated(** [**object**](http://msdn.microsoft.com/en-us/library/system.object.aspx)**^ *sender*,** [**EventArgs**](http://msdn.microsoft.com/en-us/library/system.eventargs.aspx)**^ *args* )** |

|  |
| --- |
| [JScript]  **protected function OnDeactivated(  *sender* :** [**object**](http://msdn.microsoft.com/en-us/library/system.object.aspx)**,  *args* :** [**EventArgs**](http://msdn.microsoft.com/en-us/library/system.eventargs.aspx) **);** |

## Parameters

*sender*

The source of the event.

*args*

An [EventArgs](http://msdn.microsoft.com/en-us/library/system.eventargs.aspx) that contains the event data.

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PacManGame](#frlrfPacManClientPacManGameClassTopic)

#### PacManGame.UnloadContent Method

UnloadContent will be called once per game and is the place to unload all content.

|  |
| --- |
| [Visual Basic]  **Protected Overrides Sub UnloadContent()** |

|  |
| --- |
| [C#]  **protected override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **UnloadContent()** |

|  |
| --- |
| [C++]  **protected:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **UnloadContent()** |

|  |
| --- |
| [JScript]  **protected function UnloadContent();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PacManGame](#frlrfPacManClientPacManGameClassTopic)

#### PacManGame.Update Method

Allows the game to run logic such as updating the world, checking for collisions, gathering input, and playing audio.

|  |
| --- |
| [Visual Basic]  **Protected Overrides Sub Update( \_  ByVal *gameTime* As** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) **\_ )** |

|  |
| --- |
| [C#]  **protected override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) ***gameTime* )** |

|  |
| --- |
| [C++]  **protected:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx)**^ *gameTime* )** |

|  |
| --- |
| [JScript]  **protected function Update(  *gameTime* :** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) **);** |

## Parameters

*gameTime*

Provides a snapshot of timing values.

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PacManGame](#frlrfPacManClientPacManGameClassTopic)

## PacManClient.Components Namespace

## Classes

[GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic), [InputState](#frlrfPacManClientComponentsInputStateClassTopic), [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

## Enumerations

[ScreenState](#frlrfPacManClientComponentsScreenStateClassTopic)

### GameScreen Class

A screen is a single layer that has update and draw logic, and which can be combined with other layers to build up a complex menu system. For instance the main menu, the options menu, the "are you sure you want to quit" message box, and the main game itself are all implemented as screens.

[System.Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)

**PacManClient.Components.GameScreen**

[PacManClient.Components.GameScreens.GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

|  |
| --- |
| [Visual Basic]  **Public MustInherit Class GameScreen** |

|  |
| --- |
| [C#]  **public abstract class GameScreen** |

|  |
| --- |
| [C++]  **public ref class GameScreen abstract** |

|  |
| --- |
| [JScript]  **public abstract class GameScreen** |

## Requirements

**Namespace:** [PacManClient.Components](#frlrfPacManClientComponents)

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

**Assembly:** PacMan (in PacMan.exe)

## Properties

[ControllingPlayer](#frlrfPacManClientComponentsGameScreenClassControllingPlayerTopic), [IsActive](#frlrfPacManClientComponentsGameScreenClassIsActiveTopic), [IsExiting](#frlrfPacManClientComponentsGameScreenClassIsExitingTopic), [IsPopup](#frlrfPacManClientComponentsGameScreenClassIsPopupTopic), [ScreenManager](#frlrfPacManClientComponentsGameScreenClassScreenManagerTopic), [ScreenState](#frlrfPacManClientComponentsGameScreenClassScreenStateTopic), [SoundBank](#frlrfPacManClientComponentsGameScreenClassSoundBankTopic), [TransitionAlpha](#frlrfPacManClientComponentsGameScreenClassTransitionAlphaTopic), [TransitionOffTime](#frlrfPacManClientComponentsGameScreenClassTransitionOffTimeTopic), [TransitionOnTime](#frlrfPacManClientComponentsGameScreenClassTransitionOnTimeTopic), [TransitionPosition](#frlrfPacManClientComponentsGameScreenClassTransitionPositionTopic)

## Methods

[Draw](#frlrfPacManClientComponentsGameScreenClassDrawTopic), [Equals](http://msdn.microsoft.com/en-us/library/system.object.equals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ExitScreen](#frlrfPacManClientComponentsGameScreenClassExitScreenTopic), [Finalize](http://msdn.microsoft.com/en-us/library/system.object.finalize.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetHashCode](http://msdn.microsoft.com/en-us/library/system.object.gethashcode.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetType](http://msdn.microsoft.com/en-us/library/system.object.gettype.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [HandleInput](#frlrfPacManClientComponentsGameScreenClassHandleInputTopic), [Initialize](#frlrfPacManClientComponentsGameScreenClassInitializeTopic), [LoadContent](#frlrfPacManClientComponentsGameScreenClassLoadContentTopic), [MemberwiseClone](http://msdn.microsoft.com/en-us/library/system.object.memberwiseclone.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ReferenceEquals](http://msdn.microsoft.com/en-us/library/system.object.referenceequals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ToString](http://msdn.microsoft.com/en-us/library/system.object.tostring.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [UnloadContent](#frlrfPacManClientComponentsGameScreenClassUnloadContentTopic), [Update](#frlrfPacManClientComponentsGameScreenClassUpdateTopic)

#### GameScreen.ControllingPlayer Property

Gets the index of the player who is currently controlling this screen, or null if it is accepting input from any player. This is used to lock the game to a specific player profile. The main menu responds to input from any connected gamepad, but whichever player makes a selection from this menu is given control over all subsequent screens, so other gamepads are inactive until the controlling player returns to the main menu.

|  |
| --- |
| [Visual Basic]  **Public Property ControllingPlayer() As** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**(Of** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**)  Get** |

|  |
| --- |
| [C#]  **public** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> ControllingPlayer {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> ControllingPlayer {** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> get( ); }** |

|  |
| --- |
| [JScript]  **JScript does not support generic types and methods.** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.IsActive Property

Checks whether this screen is active and can respond to user input.

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property IsActive() As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsActive {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsActive {** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **get( ); }** |

|  |
| --- |
| [JScript]  **public function get IsActive() :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.IsExiting Property

There are two possible reasons why a screen might be transitioning off. It could be temporarily going away to make room for another screen that is on top of it, or it could be going away for good. This property indicates whether the screen is exiting for real: if set, the screen will automatically remove itself as soon as the transition finishes.

|  |
| --- |
| [Visual Basic]  **Public Property IsExiting() As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **Get  Protected Friend Set(ByVal Value As As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**)** |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsExiting {get; internal protected set;}** |

|  |
| --- |
| [C++]  **public:  property** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsExiting {** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **get( );  public protected: void set(** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get IsExiting() :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**; internal protected function set IsExiting(value :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.IsPopup Property

Normally when one screen is brought up over the top of another, the first screen will transition off to make room for the new one. This property indicates whether the screen is only a small popup, in which case screens underneath it do not need to bother transitioning off.

|  |
| --- |
| [Visual Basic]  **Public Property IsPopup() As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **Get  Protected Set(ByVal Value As As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**)** |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsPopup {get; protected set;}** |

|  |
| --- |
| [C++]  **public:  property** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsPopup {** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **get( );  protected: void set(** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get IsPopup() :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**; protected function set IsPopup(value :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.ScreenManager Property

Gets the manager that this screen belongs to.

|  |
| --- |
| [Visual Basic]  **Public Property ScreenManager() As** [**ScreenManager**](#frlrfPacManClientComponentsScreenManagerClassTopic) **Get** |

|  |
| --- |
| [C#]  **public** [**ScreenManager**](#frlrfPacManClientComponentsScreenManagerClassTopic) **ScreenManager {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**ScreenManager**](#frlrfPacManClientComponentsScreenManagerClassTopic)**^ ScreenManager {** [**ScreenManager**](#frlrfPacManClientComponentsScreenManagerClassTopic)**^ get( ); }** |

|  |
| --- |
| [JScript]  **public function get ScreenManager() :** [**ScreenManager**](#frlrfPacManClientComponentsScreenManagerClassTopic)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.ScreenState Property

Gets the current screen transition state.

|  |
| --- |
| [Visual Basic]  **Public Property ScreenState() As** [**ScreenState**](#frlrfPacManClientComponentsScreenStateClassTopic) **Get  Protected Set(ByVal Value As As** [**ScreenState**](#frlrfPacManClientComponentsScreenStateClassTopic)**)** |

|  |
| --- |
| [C#]  **public** [**ScreenState**](#frlrfPacManClientComponentsScreenStateClassTopic) **ScreenState {get; protected set;}** |

|  |
| --- |
| [C++]  **public:  property** [**ScreenState**](#frlrfPacManClientComponentsScreenStateClassTopic) **ScreenState {** [**ScreenState**](#frlrfPacManClientComponentsScreenStateClassTopic) **get( );  protected: void set(** [**ScreenState**](#frlrfPacManClientComponentsScreenStateClassTopic) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get ScreenState() :** [**ScreenState**](#frlrfPacManClientComponentsScreenStateClassTopic)**; protected function set ScreenState(value :** [**ScreenState**](#frlrfPacManClientComponentsScreenStateClassTopic)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.SoundBank Property

Gets .

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property SoundBank() As** [**SoundBank**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.audio.soundbank.aspx) |

|  |
| --- |
| [C#]  **public** [**SoundBank**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.audio.soundbank.aspx) **SoundBank {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**SoundBank**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.audio.soundbank.aspx)**^ SoundBank {** [**SoundBank**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.audio.soundbank.aspx)**^ get( ); }** |

|  |
| --- |
| [JScript]  **public function get SoundBank() :** [**SoundBank**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.audio.soundbank.aspx)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.TransitionAlpha Property

Gets the current alpha of the screen transition, ranging from 1 (fully active, no transition) to 0 (transitioned fully off to nothing).

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property TransitionAlpha() As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx) |

|  |
| --- |
| [C#]  **public** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **TransitionAlpha {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **TransitionAlpha {** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **get( ); }** |

|  |
| --- |
| [JScript]  **public function get TransitionAlpha() :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.TransitionOffTime Property

Indicates how long the screen takes to transition off when it is deactivated.

|  |
| --- |
| [Visual Basic]  **Public Property TransitionOffTime() As** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **Get  Protected Set(ByVal Value As As** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**)** |

|  |
| --- |
| [C#]  **public** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **TransitionOffTime {get; protected set;}** |

|  |
| --- |
| [C++]  **public:  property** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **TransitionOffTime {** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **get( );  protected: void set(** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get TransitionOffTime() :** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**; protected function set TransitionOffTime(value :** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.TransitionOnTime Property

Indicates how long the screen takes to transition on when it is activated.

|  |
| --- |
| [Visual Basic]  **Public Property TransitionOnTime() As** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **Get  Protected Set(ByVal Value As As** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**)** |

|  |
| --- |
| [C#]  **public** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **TransitionOnTime {get; protected set;}** |

|  |
| --- |
| [C++]  **public:  property** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **TransitionOnTime {** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **get( );  protected: void set(** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get TransitionOnTime() :** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**; protected function set TransitionOnTime(value :** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.TransitionPosition Property

Gets the current position of the screen transition, ranging from zero (fully active, no transition) to one (transitioned fully off to nothing).

|  |
| --- |
| [Visual Basic]  **Public Property TransitionPosition() As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **Get  Protected Set(ByVal Value As As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**)** |

|  |
| --- |
| [C#]  **public** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **TransitionPosition {get; protected set;}** |

|  |
| --- |
| [C++]  **public:  property** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **TransitionPosition {** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **get( );  protected: void set(** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get TransitionPosition() :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**; protected function set TransitionPosition(value :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.Draw Method

This is called when the screen should draw itself.

|  |
| --- |
| [Visual Basic]  **Public MustOverride Sub Draw( \_  ByVal *gameTime* As IGameTime \_ )** |

|  |
| --- |
| [C#]  **public abstract** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Draw(  IGameTime *gameTime* )** |

|  |
| --- |
| [C++]  **public:  virtual** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Draw(  IGameTime^ *gameTime* ) abstract** |

|  |
| --- |
| [JScript]  **public abstract function Draw(  *gameTime* : IGameTime );** |

## Parameters

*gameTime*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.ExitScreen Method

Tells the screen to go away. Unlike ScreenManager.RemoveScreen, which instantly kills the screen, this method respects the transition timings and will give the screen a chance to gradually transition off.

|  |
| --- |
| [Visual Basic]  **Public Sub ExitScreen()** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **ExitScreen()** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **ExitScreen()** |

|  |
| --- |
| [JScript]  **public function ExitScreen();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.HandleInput Method

Allows the screen to handle user input. Unlike Update, this method is only called when the screen is active, and not when some other screen has taken the focus.

|  |
| --- |
| [Visual Basic]  **Public MustOverride Sub HandleInput( \_  ByVal *input* As** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic) **\_ )** |

|  |
| --- |
| [C#]  **public abstract** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **HandleInput(** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic) ***input* )** |

|  |
| --- |
| [C++]  **public:  virtual** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **HandleInput(** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic)**^ *input* ) abstract** |

|  |
| --- |
| [JScript]  **public abstract function HandleInput(  *input* :** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic) **);** |

## Parameters

*input*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.Initialize Method

Initializes the gamescreen

|  |
| --- |
| [Visual Basic]  **Public MustOverride Sub Initialize()** |

|  |
| --- |
| [C#]  **public abstract** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Initialize()** |

|  |
| --- |
| [C++]  **public:  virtual** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Initialize() abstract** |

|  |
| --- |
| [JScript]  **public abstract function Initialize();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.LoadContent Method

Load graphics content for the screen.

|  |
| --- |
| [Visual Basic]  **Public Overridable Sub LoadContent()** |

|  |
| --- |
| [C#]  **public virtual** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **LoadContent()** |

|  |
| --- |
| [C++]  **public:  virtual** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **LoadContent()** |

|  |
| --- |
| [JScript]  **public function LoadContent();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.UnloadContent Method

Unload content for the screen.

|  |
| --- |
| [Visual Basic]  **Public Overridable Sub UnloadContent()** |

|  |
| --- |
| [C#]  **public virtual** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **UnloadContent()** |

|  |
| --- |
| [C++]  **public:  virtual** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **UnloadContent()** |

|  |
| --- |
| [JScript]  **public function UnloadContent();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

#### GameScreen.Update Method

Allows the screen to run logic, such as updating the transition position. Unlike HandleInput, this method is called regardless of whether the screen is active, hidden, or in the middle of a transition.

|  |
| --- |
| [Visual Basic]  **Public Overridable Sub Update( \_  ByVal *gameTime* As IGameTime, \_  ByVal *otherScreenHasFocus* As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**, \_  ByVal *coveredByOtherScreen* As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public virtual** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(  IGameTime *gameTime*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***otherScreenHasFocus*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***coveredByOtherScreen* )** |

|  |
| --- |
| [C++]  **public:  virtual** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(  IGameTime^ *gameTime*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***otherScreenHasFocus*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***coveredByOtherScreen* )** |

|  |
| --- |
| [JScript]  **public function Update(  *gameTime* : IGameTime,  *otherScreenHasFocus* :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**,  *coveredByOtherScreen* :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **);** |

## Parameters

*gameTime*

*otherScreenHasFocus*

*coveredByOtherScreen*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

### InputState Class

Helper for reading input from keyboard, gamepad, and touch input. This class tracks both the current and previous state of the input devices, and implements query methods for high level input actions such as "move up through the menu" or "pause the game".

[System.Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)

**PacManClient.Components.InputState**

|  |
| --- |
| [Visual Basic]  **Public Class InputState** |

|  |
| --- |
| [C#]  **public class InputState** |

|  |
| --- |
| [C++]  **public ref class InputState** |

|  |
| --- |
| [JScript]  **public class InputState** |

## Requirements

**Namespace:** [PacManClient.Components](#frlrfPacManClientComponents)

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

**Assembly:** PacMan (in PacMan.exe)

## Constructors

[InputState Constructor](#frlrfPacManClientComponentsInputStateClassctorTopic)

## Methods

[Equals](http://msdn.microsoft.com/en-us/library/system.object.equals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [Finalize](http://msdn.microsoft.com/en-us/library/system.object.finalize.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetHashCode](http://msdn.microsoft.com/en-us/library/system.object.gethashcode.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetType](http://msdn.microsoft.com/en-us/library/system.object.gettype.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [IsMenuCancel](#frlrfPacManClientComponentsInputStateClassIsMenuCancelTopic), [IsMenuDown](#frlrfPacManClientComponentsInputStateClassIsMenuDownTopic), [IsMenuSelect](#frlrfPacManClientComponentsInputStateClassIsMenuSelectTopic), [IsMenuUp](#frlrfPacManClientComponentsInputStateClassIsMenuUpTopic), [IsNewButtonPress](#frlrfPacManClientComponentsInputStateClassIsNewButtonPressTopic), [IsNewKeyPress](#frlrfPacManClientComponentsInputStateClassIsNewKeyPressTopic), [IsPauseGame](#frlrfPacManClientComponentsInputStateClassIsPauseGameTopic), [MemberwiseClone](http://msdn.microsoft.com/en-us/library/system.object.memberwiseclone.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ReferenceEquals](http://msdn.microsoft.com/en-us/library/system.object.referenceequals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ToString](http://msdn.microsoft.com/en-us/library/system.object.tostring.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [Update](#frlrfPacManClientComponentsInputStateClassUpdateTopic)

## Constants

[CurrentGamePadStates](#frlrfPacManClientComponentsInputStateClassCurrentGamePadStatesTopic), [CurrentKeyboardStates](#frlrfPacManClientComponentsInputStateClassCurrentKeyboardStatesTopic), [GamePadWasConnected](#frlrfPacManClientComponentsInputStateClassGamePadWasConnectedTopic), [LastGamePadStates](#frlrfPacManClientComponentsInputStateClassLastGamePadStatesTopic), [LastKeyboardStates](#frlrfPacManClientComponentsInputStateClassLastKeyboardStatesTopic), [MaxInputs](#frlrfPacManClientComponentsInputStateClassMaxInputsTopic)

#### InputState Constructor

Constructs a new input state.

|  |
| --- |
| [Visual Basic]  **Public Sub New()** |

|  |
| --- |
| [C#]  **public InputState()** |

|  |
| --- |
| [C++]  **public:  InputState()** |

|  |
| --- |
| [JScript]  **public function InputState();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### InputState.IsMenuCancel Method

Checks for a "menu cancel" input action. The controllingPlayer parameter specifies which player to read input for. If this is null, it will accept input from any player. When the action is detected, the output playerIndex reports which player pressed it.

|  |
| --- |
| [Visual Basic]  **Public Function IsMenuCancel( \_  ByVal *controllingPlayer* As** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**(Of** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**), \_  ByRef *playerIndex* As** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx) **\_ ) As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsMenuCancel(** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer*,  out** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx) ***playerIndex* )** |

|  |
| --- |
| [C++]  **public:** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsMenuCancel(** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer*,** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**& *playerIndex* )** |

|  |
| --- |
| [JScript]  **JScript does not support generic types and methods.** |

## Parameters

*controllingPlayer*

*playerIndex*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### InputState.IsMenuDown Method

Checks for a "menu down" input action. The controllingPlayer parameter specifies which player to read input for. If this is null, it will accept input from any player.

|  |
| --- |
| [Visual Basic]  **Public Function IsMenuDown( \_  ByVal *controllingPlayer* As** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**(Of** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**) \_ ) As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsMenuDown(** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer* )** |

|  |
| --- |
| [C++]  **public:** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsMenuDown(** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer* )** |

|  |
| --- |
| [JScript]  **JScript does not support generic types and methods.** |

## Parameters

*controllingPlayer*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### InputState.IsMenuSelect Method

Checks for a "menu select" input action. The controllingPlayer parameter specifies which player to read input for. If this is null, it will accept input from any player. When the action is detected, the output playerIndex reports which player pressed it.

|  |
| --- |
| [Visual Basic]  **Public Function IsMenuSelect( \_  ByVal *controllingPlayer* As** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**(Of** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**), \_  ByRef *playerIndex* As** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx) **\_ ) As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsMenuSelect(** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer*,  out** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx) ***playerIndex* )** |

|  |
| --- |
| [C++]  **public:** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsMenuSelect(** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer*,** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**& *playerIndex* )** |

|  |
| --- |
| [JScript]  **JScript does not support generic types and methods.** |

## Parameters

*controllingPlayer*

*playerIndex*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### InputState.IsMenuUp Method

Checks for a "menu up" input action. The controllingPlayer parameter specifies which player to read input for. If this is null, it will accept input from any player.

|  |
| --- |
| [Visual Basic]  **Public Function IsMenuUp( \_  ByVal *controllingPlayer* As** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**(Of** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**) \_ ) As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsMenuUp(** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer* )** |

|  |
| --- |
| [C++]  **public:** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsMenuUp(** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer* )** |

|  |
| --- |
| [JScript]  **JScript does not support generic types and methods.** |

## Parameters

*controllingPlayer*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### InputState.IsNewButtonPress Method

Helper for checking if a button was newly pressed during this update. The controllingPlayer parameter specifies which player to read input for. If this is null, it will accept input from any player. When a button press is detected, the output playerIndex reports which player pressed it.

|  |
| --- |
| [Visual Basic]  **Public Function IsNewButtonPress( \_  ByVal *button* As** [**Buttons**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.buttons.aspx)**, \_  ByVal *controllingPlayer* As** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**(Of** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**), \_  ByRef *playerIndex* As** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx) **\_ ) As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsNewButtonPress(** [**Buttons**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.buttons.aspx) ***button*,** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer*,  out** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx) ***playerIndex* )** |

|  |
| --- |
| [C++]  **public:** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsNewButtonPress(** [**Buttons**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.buttons.aspx) ***button*,** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer*,** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**& *playerIndex* )** |

|  |
| --- |
| [JScript]  **JScript does not support generic types and methods.** |

## Parameters

*button*

*controllingPlayer*

*playerIndex*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### InputState.IsNewKeyPress Method

Helper for checking if a key was newly pressed during this update. The controllingPlayer parameter specifies which player to read input for. If this is null, it will accept input from any player. When a keypress is detected, the output playerIndex reports which player pressed it.

|  |
| --- |
| [Visual Basic]  **Public Function IsNewKeyPress( \_  ByVal *key* As** [**Keys**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.keys.aspx)**, \_  ByVal *controllingPlayer* As** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**(Of** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**), \_  ByRef *playerIndex* As** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx) **\_ ) As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsNewKeyPress(** [**Keys**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.keys.aspx) ***key*,** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer*,  out** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx) ***playerIndex* )** |

|  |
| --- |
| [C++]  **public:** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsNewKeyPress(** [**Keys**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.keys.aspx) ***key*,** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer*,** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**& *playerIndex* )** |

|  |
| --- |
| [JScript]  **JScript does not support generic types and methods.** |

## Parameters

*key*

*controllingPlayer*

*playerIndex*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### InputState.IsPauseGame Method

Checks for a "pause the game" input action. The controllingPlayer parameter specifies which player to read input for. If this is null, it will accept input from any player.

|  |
| --- |
| [Visual Basic]  **Public Function IsPauseGame( \_  ByVal *controllingPlayer* As** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**(Of** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**) \_ ) As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsPauseGame(** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer* )** |

|  |
| --- |
| [C++]  **public:** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **IsPauseGame(** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer* )** |

|  |
| --- |
| [JScript]  **JScript does not support generic types and methods.** |

## Parameters

*controllingPlayer*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### InputState.Update Method

Reads the latest state of the keyboard and gamepad.

|  |
| --- |
| [Visual Basic]  **Public Sub Update()** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update()** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update()** |

|  |
| --- |
| [JScript]  **public function Update();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### CurrentGamePadStates Constant

|  |
| --- |
| [Visual Basic]  **Public Const CurrentGamePadStates As** [**GamePadState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.gamepadstate.aspx)**()** |

|  |
| --- |
| [C#]  **public const** [**GamePadState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.gamepadstate.aspx)**[] CurrentGamePadStates** |

|  |
| --- |
| [C++]  **public:  const array<** [**GamePadState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.gamepadstate.aspx) **>^ CurrentGamePadStates;** |

|  |
| --- |
| [JScript]  **public const CurrentGamePadStates :** [**GamePadState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.gamepadstate.aspx)**[]** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### CurrentKeyboardStates Constant

|  |
| --- |
| [Visual Basic]  **Public Const CurrentKeyboardStates As** [**KeyboardState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.keyboardstate.aspx)**()** |

|  |
| --- |
| [C#]  **public const** [**KeyboardState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.keyboardstate.aspx)**[] CurrentKeyboardStates** |

|  |
| --- |
| [C++]  **public:  const array<** [**KeyboardState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.keyboardstate.aspx) **>^ CurrentKeyboardStates;** |

|  |
| --- |
| [JScript]  **public const CurrentKeyboardStates :** [**KeyboardState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.keyboardstate.aspx)**[]** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### GamePadWasConnected Constant

|  |
| --- |
| [Visual Basic]  **Public Const GamePadWasConnected As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**()** |

|  |
| --- |
| [C#]  **public const** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**[] GamePadWasConnected** |

|  |
| --- |
| [C++]  **public:  const array<** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **>^ GamePadWasConnected;** |

|  |
| --- |
| [JScript]  **public const GamePadWasConnected :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**[]** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### LastGamePadStates Constant

|  |
| --- |
| [Visual Basic]  **Public Const LastGamePadStates As** [**GamePadState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.gamepadstate.aspx)**()** |

|  |
| --- |
| [C#]  **public const** [**GamePadState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.gamepadstate.aspx)**[] LastGamePadStates** |

|  |
| --- |
| [C++]  **public:  const array<** [**GamePadState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.gamepadstate.aspx) **>^ LastGamePadStates;** |

|  |
| --- |
| [JScript]  **public const LastGamePadStates :** [**GamePadState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.gamepadstate.aspx)**[]** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### LastKeyboardStates Constant

|  |
| --- |
| [Visual Basic]  **Public Const LastKeyboardStates As** [**KeyboardState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.keyboardstate.aspx)**()** |

|  |
| --- |
| [C#]  **public const** [**KeyboardState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.keyboardstate.aspx)**[] LastKeyboardStates** |

|  |
| --- |
| [C++]  **public:  const array<** [**KeyboardState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.keyboardstate.aspx) **>^ LastKeyboardStates;** |

|  |
| --- |
| [JScript]  **public const LastKeyboardStates :** [**KeyboardState**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.input.keyboardstate.aspx)**[]** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

#### MaxInputs Constant

|  |
| --- |
| [Visual Basic]  **Public Const MaxInputs As** [**Integer**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) **= 4** |

|  |
| --- |
| [C#]  **public const** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) **MaxInputs = 4** |

|  |
| --- |
| [C++]  **public:  const** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) **MaxInputs = 4;** |

|  |
| --- |
| [JScript]  **public const MaxInputs :** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) **= 4** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [InputState](#frlrfPacManClientComponentsInputStateClassTopic)

### ScreenManager Class

The screen manager is a component which manages one or more GameScreen instances. It maintains a stack of screens, calls their Update and Draw methods at the appropriate times, and automatically routes input to the topmost active screen.

[System.Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)

[Microsoft.Xna.Framework.GameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.aspx)

[Microsoft.Xna.Framework.DrawableGameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx)

**PacManClient.Components.ScreenManager**

|  |
| --- |
| [Visual Basic]  **Public Class ScreenManager  Inherits** [**DrawableGameComponent**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx) |

|  |
| --- |
| [C#]  **public class ScreenManager :** [**DrawableGameComponent**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx) |

|  |
| --- |
| [C++]  **public ref class ScreenManager : public** [**DrawableGameComponent**](http://msdn.microsoft.com/en-us/library/microsoft::xna::framework::drawablegamecomponent.aspx)**^** |

|  |
| --- |
| [JScript]  **public class ScreenManager  extends** [**DrawableGameComponent**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx) |

## Requirements

**Namespace:** [PacManClient.Components](#frlrfPacManClientComponents)

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

**Assembly:** PacMan (in PacMan.exe)

## Constructors

[ScreenManager Constructor](#frlrfPacManClientComponentsScreenManagerClassctorTopic)

## Properties

[Content](#frlrfPacManClientComponentsScreenManagerClassContentTopic), [DrawOrder](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.draworder.aspx) (inherited from [DrawableGameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx)), [Enabled](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.enabled.aspx) (inherited from [GameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.aspx)), [Font](#frlrfPacManClientComponentsScreenManagerClassFontTopic), [Game](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.game.aspx) (inherited from [GameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.aspx)), [GraphicsDevice](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.graphicsdevice.aspx) (inherited from [DrawableGameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx)), [Input](#frlrfPacManClientComponentsScreenManagerClassInputTopic), [SoundBank](#frlrfPacManClientComponentsScreenManagerClassSoundBankTopic), [SpriteBatch](#frlrfPacManClientComponentsScreenManagerClassSpriteBatchTopic), [TraceEnabled](#frlrfPacManClientComponentsScreenManagerClassTraceEnabledTopic), [UpdateOrder](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.updateorder.aspx) (inherited from [GameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.aspx)), [Visible](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.visible.aspx) (inherited from [DrawableGameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx))

## Methods

[AddScreen](#frlrfPacManClientComponentsScreenManagerClassAddScreenTopic), [Dispose](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.dispose.aspx) (inherited from [DrawableGameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx)), [Draw](#frlrfPacManClientComponentsScreenManagerClassDrawTopic), [Equals](http://msdn.microsoft.com/en-us/library/system.object.equals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [FadeBackBufferToBlack](#frlrfPacManClientComponentsScreenManagerClassFadeBackBufferToBlackTopic), [Finalize](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.finalize.aspx) (inherited from [GameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.aspx)), [GetScreens](#frlrfPacManClientComponentsScreenManagerClassGetScreensTopic), [Initialize](#frlrfPacManClientComponentsScreenManagerClassInitializeTopic), [LoadContent](#frlrfPacManClientComponentsScreenManagerClassLoadContentTopic), [OnDrawOrderChanged](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.ondraworderchanged.aspx) (inherited from [DrawableGameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx)), [OnEnabledChanged](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.onenabledchanged.aspx) (inherited from [GameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.aspx)), [OnUpdateOrderChanged](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.onupdateorderchanged.aspx) (inherited from [GameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.aspx)), [OnVisibleChanged](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.onvisiblechanged.aspx) (inherited from [DrawableGameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx)), [RemoveScreen](#frlrfPacManClientComponentsScreenManagerClassRemoveScreenTopic), [ToString](http://msdn.microsoft.com/en-us/library/system.object.tostring.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [UnloadContent](#frlrfPacManClientComponentsScreenManagerClassUnloadContentTopic), [Update](#frlrfPacManClientComponentsScreenManagerClassUpdateTopic)

## Events

[Disposed](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.disposed.aspx) (inherited from [GameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.aspx)), [DrawOrderChanged](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.draworderchanged.aspx) (inherited from [DrawableGameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx)), [EnabledChanged](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.enabledchanged.aspx) (inherited from [GameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.aspx)), [UpdateOrderChanged](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.updateorderchanged.aspx) (inherited from [GameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gamecomponent.aspx)), [VisibleChanged](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.visiblechanged.aspx) (inherited from [DrawableGameComponent](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.drawablegamecomponent.aspx))

#### ScreenManager Constructor

Constructs a new screen manager component.

|  |
| --- |
| [Visual Basic]  **Public Sub New( \_  ByVal *game* As** [**PacManGame**](#frlrfPacManClientPacManGameClassTopic) **\_ )** |

|  |
| --- |
| [C#]  **public ScreenManager(** [**PacManGame**](#frlrfPacManClientPacManGameClassTopic) ***game* )** |

|  |
| --- |
| [C++]  **public:  ScreenManager(** [**PacManGame**](#frlrfPacManClientPacManGameClassTopic)**^ *game* )** |

|  |
| --- |
| [JScript]  **public function ScreenManager(  *game* :** [**PacManGame**](#frlrfPacManClientPacManGameClassTopic) **);** |

## Parameters

*game*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.Content Property

Gets the content manager from the game class

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property Content() As** [**ContentManager**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.content.contentmanager.aspx) |

|  |
| --- |
| [C#]  **public** [**ContentManager**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.content.contentmanager.aspx) **Content {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**ContentManager**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.content.contentmanager.aspx)**^ Content {** [**ContentManager**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.content.contentmanager.aspx)**^ get( ); }** |

|  |
| --- |
| [JScript]  **public function get Content() :** [**ContentManager**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.content.contentmanager.aspx)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.Font Property

A default font shared by all the screens. This saves each screen having to bother loading their own local copy.

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property Font() As** [**SpriteFont**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritefont.aspx) |

|  |
| --- |
| [C#]  **public** [**SpriteFont**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritefont.aspx) **Font {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**SpriteFont**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritefont.aspx)**^ Font {** [**SpriteFont**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritefont.aspx)**^ get( ); }** |

|  |
| --- |
| [JScript]  **public function get Font() :** [**SpriteFont**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritefont.aspx)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.Input Property

Gets the input state

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property Input() As** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic) |

|  |
| --- |
| [C#]  **public** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic) **Input {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic)**^ Input {** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic)**^ get( ); }** |

|  |
| --- |
| [JScript]  **public function get Input() :** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.SoundBank Property

Gets the soundbank

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property SoundBank() As** [**SoundBank**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.audio.soundbank.aspx) |

|  |
| --- |
| [C#]  **public** [**SoundBank**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.audio.soundbank.aspx) **SoundBank {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**SoundBank**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.audio.soundbank.aspx)**^ SoundBank {** [**SoundBank**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.audio.soundbank.aspx)**^ get( ); }** |

|  |
| --- |
| [JScript]  **public function get SoundBank() :** [**SoundBank**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.audio.soundbank.aspx)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.SpriteBatch Property

A default SpriteBatch shared by all the screens. This saves each screen having to bother creating their own local instance.

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property SpriteBatch() As** [**SpriteBatch**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritebatch.aspx) |

|  |
| --- |
| [C#]  **public** [**SpriteBatch**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritebatch.aspx) **SpriteBatch {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**SpriteBatch**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritebatch.aspx)**^ SpriteBatch {** [**SpriteBatch**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritebatch.aspx)**^ get( ); }** |

|  |
| --- |
| [JScript]  **public function get SpriteBatch() :** [**SpriteBatch**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritebatch.aspx)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.TraceEnabled Property

If true, the manager prints out a list of all the screens each time it is updated. This can be useful for making sure everything is being added and removed at the right times.

|  |
| --- |
| [Visual Basic]  **Public Property TraceEnabled() As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) |

|  |
| --- |
| [C#]  **public** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **TraceEnabled {get; set;}** |

|  |
| --- |
| [C++]  **public:  property** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **TraceEnabled {** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **get( );  void set(** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get TraceEnabled() :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**; public function set TraceEnabled(value :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.AddScreen Method

Adds a new screen to the screen manager.

|  |
| --- |
| [Visual Basic]  **Public Sub AddScreen( \_  ByVal *screen* As** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic)**, \_  ByVal *controllingPlayer* As** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**(Of** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**) \_ )** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **AddScreen(** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic) ***screen*,** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **AddScreen(** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic)**^ *screen*,** [**Nullable**](http://msdn.microsoft.com/en-us/library/b3h38hb0.aspx)**<**[**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**> *controllingPlayer* )** |

|  |
| --- |
| [JScript]  **JScript does not support generic types and methods.** |

## Parameters

*screen*

*controllingPlayer*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.Draw Method

Tells each screen to draw itself.

|  |
| --- |
| [Visual Basic]  **Public Overrides Sub Draw( \_  ByVal *gameTime* As** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Draw(** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) ***gameTime* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Draw(** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx)**^ *gameTime* )** |

|  |
| --- |
| [JScript]  **public function Draw(  *gameTime* :** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) **);** |

## Parameters

*gameTime*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.FadeBackBufferToBlack Method

Helper draws a translucent black fullscreen sprite, used for fading screens in and out, and for darkening the background behind popups.

|  |
| --- |
| [Visual Basic]  **Public Sub FadeBackBufferToBlack( \_  ByVal *alpha* As** [**Single**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **FadeBackBufferToBlack(** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***alpha* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **FadeBackBufferToBlack(** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) ***alpha* )** |

|  |
| --- |
| [JScript]  **public function FadeBackBufferToBlack(  *alpha* :** [**float**](http://msdn.microsoft.com/en-us/library/system.single.aspx) **);** |

## Parameters

*alpha*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.GetScreens Method

Expose an array holding all the screens. We return a copy rather than the real master list, because screens should only ever be added or removed using the AddScreen and RemoveScreen methods.

|  |
| --- |
| [Visual Basic]  **Public Function GetScreens() As** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic)**()** |

|  |
| --- |
| [C#]  **public** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic)**[] GetScreens()** |

|  |
| --- |
| [C++]  **public:  array<** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic)**^ >^ GetScreens()** |

|  |
| --- |
| [JScript]  **public function GetScreens() :** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic)**[];** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.Initialize Method

Initializes the screen manager component.

|  |
| --- |
| [Visual Basic]  **Public Overrides Sub Initialize()** |

|  |
| --- |
| [C#]  **public override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Initialize()** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Initialize()** |

|  |
| --- |
| [JScript]  **public function Initialize();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.LoadContent Method

Load your graphics content.

|  |
| --- |
| [Visual Basic]  **Protected Overrides Sub LoadContent()** |

|  |
| --- |
| [C#]  **protected override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **LoadContent()** |

|  |
| --- |
| [C++]  **protected:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **LoadContent()** |

|  |
| --- |
| [JScript]  **protected function LoadContent();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.RemoveScreen Method

Removes a screen from the screen manager. You should normally use GameScreen.ExitScreen instead of calling this directly, so the screen can gradually transition off rather than just being instantly removed.

|  |
| --- |
| [Visual Basic]  **Public Sub RemoveScreen( \_  ByVal *screen* As** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic) **\_ )** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **RemoveScreen(** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic) ***screen* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **RemoveScreen(** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic)**^ *screen* )** |

|  |
| --- |
| [JScript]  **public function RemoveScreen(  *screen* :** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic) **);** |

## Parameters

*screen*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.UnloadContent Method

Unload your graphics content.

|  |
| --- |
| [Visual Basic]  **Protected Overrides Sub UnloadContent()** |

|  |
| --- |
| [C#]  **protected override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **UnloadContent()** |

|  |
| --- |
| [C++]  **protected:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **UnloadContent()** |

|  |
| --- |
| [JScript]  **protected function UnloadContent();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

#### ScreenManager.Update Method

Allows each screen to run logic.

|  |
| --- |
| [Visual Basic]  **Public Overrides Sub Update( \_  ByVal *gameTime* As** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) ***gameTime* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx)**^ *gameTime* )** |

|  |
| --- |
| [JScript]  **public function Update(  *gameTime* :** [**GameTime**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.gametime.aspx) **);** |

## Parameters

*gameTime*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [ScreenManager](#frlrfPacManClientComponentsScreenManagerClassTopic)

### ScreenState Enumeration

Enum describes the screen transition state.

|  |  |  |
| --- | --- | --- |
| **Constant** | **Value** | **Description** |
| **Active** | 1 |  |
| **Hidden** | 3 |  |
| **TransitionOff** | 2 |  |
| **TransitionOn** | 0 |  |

## Requirements

**Namespace:** [PacManClient.Components](#frlrfPacManClientComponents)

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

**Assembly:** PacMan (in PacMan.exe)

## PacManClient.Components.GameScreens Namespace

## Classes

[GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic), [MultiplayerScreen](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassTopic)

### GameplayScreen Class

This screen implements the actual game logic. It is just a placeholder to get the idea across: you'll probably want to put some more interesting gameplay in here!

[System.Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)

[PacManClient.Components.GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)

**PacManClient.Components.GameScreens.GameplayScreen**

[PacManClient.Components.GameScreens.MultiplayerScreen](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassTopic)

|  |
| --- |
| [Visual Basic]  **Public MustInherit Class GameplayScreen  Inherits** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic) |

|  |
| --- |
| [C#]  **public abstract class GameplayScreen :** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic) |

|  |
| --- |
| [C++]  **public ref class GameplayScreen abstract : public** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic)**^** |

|  |
| --- |
| [JScript]  **public abstract class GameplayScreen  extends** [**GameScreen**](#frlrfPacManClientComponentsGameScreenClassTopic) |

## Requirements

**Namespace:** [PacManClient.Components.GameScreens](#frlrfPacManClientComponentsGameScreens)

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

**Assembly:** PacMan (in PacMan.exe)

## Constructors

[GameplayScreen Constructor](#frlrfPacManClientComponentsGameScreensGameplayScreenClassctorTopic)

## Properties

[ControllingPlayer](#frlrfPacManClientComponentsGameScreenClassControllingPlayerTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [GameState](#frlrfPacManClientComponentsGameScreensGameplayScreenClassGameStateTopic), [IsActive](#frlrfPacManClientComponentsGameScreenClassIsActiveTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [IsExiting](#frlrfPacManClientComponentsGameScreenClassIsExitingTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [IsPopup](#frlrfPacManClientComponentsGameScreenClassIsPopupTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [ScreenManager](#frlrfPacManClientComponentsGameScreenClassScreenManagerTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [ScreenState](#frlrfPacManClientComponentsGameScreenClassScreenStateTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [SoundBank](#frlrfPacManClientComponentsGameScreenClassSoundBankTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [TransitionAlpha](#frlrfPacManClientComponentsGameScreenClassTransitionAlphaTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [TransitionOffTime](#frlrfPacManClientComponentsGameScreenClassTransitionOffTimeTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [TransitionOnTime](#frlrfPacManClientComponentsGameScreenClassTransitionOnTimeTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [TransitionPosition](#frlrfPacManClientComponentsGameScreenClassTransitionPositionTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic))

## Methods

[CreateTimeStamp](#frlrfPacManClientComponentsGameScreensGameplayScreenClassCreateTimeStampTopic), [Draw](#frlrfPacManClientComponentsGameScreensGameplayScreenClassDrawTopic), [Equals](http://msdn.microsoft.com/en-us/library/system.object.equals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ExitScreen](#frlrfPacManClientComponentsGameScreenClassExitScreenTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [Finalize](http://msdn.microsoft.com/en-us/library/system.object.finalize.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetHashCode](http://msdn.microsoft.com/en-us/library/system.object.gethashcode.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetType](http://msdn.microsoft.com/en-us/library/system.object.gettype.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [HandleInput](#frlrfPacManClientComponentsGameScreensGameplayScreenClassHandleInputTopic), [Initialize](#frlrfPacManClientComponentsGameScreenClassInitializeTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [LoadContent](#frlrfPacManClientComponentsGameScreensGameplayScreenClassLoadContentTopic), [MemberwiseClone](http://msdn.microsoft.com/en-us/library/system.object.memberwiseclone.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [OnDeath](#frlrfPacManClientComponentsGameScreensGameplayScreenClassOnDeathTopic), [OnPowerUpPickedUp](#frlrfPacManClientComponentsGameScreensGameplayScreenClassOnPowerUpPickedUpTopic), [PlayGame](#frlrfPacManClientComponentsGameScreensGameplayScreenClassPlayGameTopic), [ReferenceEquals](http://msdn.microsoft.com/en-us/library/system.object.referenceequals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [StartGame](#frlrfPacManClientComponentsGameScreensGameplayScreenClassStartGameTopic), [ToString](http://msdn.microsoft.com/en-us/library/system.object.tostring.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [UnloadContent](#frlrfPacManClientComponentsGameScreensGameplayScreenClassUnloadContentTopic), [Update](#frlrfPacManClientComponentsGameScreensGameplayScreenClassUpdateTopic), [doTransition](#frlrfPacManClientComponentsGameScreensGameplayScreenClassdoTransitionTopic)

#### GameplayScreen Constructor

Constructor.

|  |
| --- |
| [Visual Basic]  **Public Sub New()** |

|  |
| --- |
| [C#]  **public GameplayScreen()** |

|  |
| --- |
| [C++]  **public:  GameplayScreen()** |

|  |
| --- |
| [JScript]  **public function GameplayScreen();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.GameState Property

Gets or sets the current gamestate

|  |
| --- |
| [Visual Basic]  **Public Property GameState() As GameState** |

|  |
| --- |
| [C#]  **public GameState GameState {get; set;}** |

|  |
| --- |
| [C++]  **public:  property GameState GameState {  GameState get( );  void set(  GameState value  ); }** |

|  |
| --- |
| [JScript]  **public function get GameState() : GameState; public function set GameState(value : GameState);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.CreateTimeStamp Method

Creates a timestamp when a timestamp even has been fired

|  |
| --- |
| [Visual Basic]  **Public Sub CreateTimeStamp( \_  ByVal *sender* As** [**Object**](http://msdn.microsoft.com/en-us/library/system.object.aspx)**, \_  ByVal *e* As TimeStampEventArgs \_ )** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **CreateTimeStamp(** [**object**](http://msdn.microsoft.com/en-us/library/system.object.aspx) ***sender*,  TimeStampEventArgs *e* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **CreateTimeStamp(** [**object**](http://msdn.microsoft.com/en-us/library/system.object.aspx)**^ *sender*,  TimeStampEventArgs^ *e* )** |

|  |
| --- |
| [JScript]  **public function CreateTimeStamp(  *sender* :** [**object**](http://msdn.microsoft.com/en-us/library/system.object.aspx)**,  *e* : TimeStampEventArgs );** |

## Parameters

*sender*

The object that fired the event

*e*

The timestamp arguments

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.Draw Method

Draws the gameplay screen.

|  |
| --- |
| [Visual Basic]  **Public Overrides Sub Draw( \_  ByVal *gameTime* As IGameTime \_ )** |

|  |
| --- |
| [C#]  **public override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Draw(  IGameTime *gameTime* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Draw(  IGameTime^ *gameTime* )** |

|  |
| --- |
| [JScript]  **public function Draw(  *gameTime* : IGameTime );** |

## Parameters

*gameTime*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.HandleInput Method

Lets the game respond to player input. Unlike the Update method, this will only be called when the gameplay screen is active.

|  |
| --- |
| [Visual Basic]  **Public Overrides Sub HandleInput( \_  ByVal *input* As** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic) **\_ )** |

|  |
| --- |
| [C#]  **public override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **HandleInput(** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic) ***input* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **HandleInput(** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic)**^ *input* )** |

|  |
| --- |
| [JScript]  **public function HandleInput(  *input* :** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic) **);** |

## Parameters

*input*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.LoadContent Method

Load graphics content for the game.

|  |
| --- |
| [Visual Basic]  **Public Overrides Sub LoadContent()** |

|  |
| --- |
| [C#]  **public override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **LoadContent()** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **LoadContent()** |

|  |
| --- |
| [JScript]  **public function LoadContent();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.OnDeath Method

Handles the gamestate if pacman is eaten

|  |
| --- |
| [Visual Basic]  **Public Sub OnDeath( \_  ByVal *gameTime* As IGameTime \_ )** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **OnDeath(  IGameTime *gameTime* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **OnDeath(  IGameTime^ *gameTime* )** |

|  |
| --- |
| [JScript]  **public function OnDeath(  *gameTime* : IGameTime );** |

## Parameters

*gameTime*

the current gametime

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.OnPowerUpPickedUp Method

This gets called when a Pacman eats a PowerUp

|  |
| --- |
| [Visual Basic]  **Public Sub OnPowerUpPickedUp( \_  ByVal *sender* As** [**Object**](http://msdn.microsoft.com/en-us/library/system.object.aspx)**, \_  ByVal *e* As PowerUpEffectEventArgs \_ )** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **OnPowerUpPickedUp(** [**object**](http://msdn.microsoft.com/en-us/library/system.object.aspx) ***sender*,  PowerUpEffectEventArgs *e* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **OnPowerUpPickedUp(** [**object**](http://msdn.microsoft.com/en-us/library/system.object.aspx)**^ *sender*,  PowerUpEffectEventArgs^ *e* )** |

|  |
| --- |
| [JScript]  **public function OnPowerUpPickedUp(  *sender* :** [**object**](http://msdn.microsoft.com/en-us/library/system.object.aspx)**,  *e* : PowerUpEffectEventArgs );** |

## Parameters

*sender*

The powerup that has been eaten

*e*

The event arguments

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.PlayGame Method

Plays the game, updates it according to the current playbehaviour

|  |
| --- |
| [Visual Basic]  **Public Sub PlayGame( \_  ByVal *gameTime* As IGameTime \_ )** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **PlayGame(  IGameTime *gameTime* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **PlayGame(  IGameTime^ *gameTime* )** |

|  |
| --- |
| [JScript]  **public function PlayGame(  *gameTime* : IGameTime );** |

## Parameters

*gameTime*

the current gametime

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.StartGame Method

Starts the current game

|  |
| --- |
| [Visual Basic]  **Public Sub StartGame( \_  ByVal *gameTime* As IGameTime \_ )** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **StartGame(  IGameTime *gameTime* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **StartGame(  IGameTime^ *gameTime* )** |

|  |
| --- |
| [JScript]  **public function StartGame(  *gameTime* : IGameTime );** |

## Parameters

*gameTime*

the current gametime

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.UnloadContent Method

Unload graphics content used by the game.

|  |
| --- |
| [Visual Basic]  **Public Overrides Sub UnloadContent()** |

|  |
| --- |
| [C#]  **public override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **UnloadContent()** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **UnloadContent()** |

|  |
| --- |
| [JScript]  **public function UnloadContent();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.Update Method

Updates the state of the game. This method checks the GameScreen.IsActive property, so the game will stop updating when the pause menu is active, or if you tab away to a different application.

|  |
| --- |
| [Visual Basic]  **Public Overrides Sub Update( \_  ByVal *gameTime* As IGameTime, \_  ByVal *otherScreenHasFocus* As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**, \_  ByVal *coveredByOtherScreen* As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(  IGameTime *gameTime*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***otherScreenHasFocus*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***coveredByOtherScreen* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(  IGameTime^ *gameTime*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***otherScreenHasFocus*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***coveredByOtherScreen* )** |

|  |
| --- |
| [JScript]  **public function Update(  *gameTime* : IGameTime,  *otherScreenHasFocus* :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**,  *coveredByOtherScreen* :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **);** |

## Parameters

*gameTime*

*otherScreenHasFocus*

*coveredByOtherScreen*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

#### GameplayScreen.doTransition Method

Does the screen transition (fading in and out)

|  |
| --- |
| [Visual Basic]  **Public Sub doTransition()** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **doTransition()** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **doTransition()** |

|  |
| --- |
| [JScript]  **public function doTransition();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

### MultiplayerScreen Class

[System.Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)

PacManClient.Components.GameScreen

[PacManClient.Components.GameScreens.GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)

**PacManClient.Components.GameScreens.MultiplayerScreen**

|  |
| --- |
| [Visual Basic]  **Public Class MultiplayerScreen  Inherits** [**GameplayScreen**](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic) |

|  |
| --- |
| [C#]  **public class MultiplayerScreen :** [**GameplayScreen**](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic) |

|  |
| --- |
| [C++]  **public ref class MultiplayerScreen : public** [**GameplayScreen**](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)**^** |

|  |
| --- |
| [JScript]  **public class MultiplayerScreen  extends** [**GameplayScreen**](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic) |

## Requirements

**Namespace:** [PacManClient.Components.GameScreens](#frlrfPacManClientComponentsGameScreens)

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

**Assembly:** PacMan (in PacMan.exe)

## Constructors

[MultiplayerScreen Constructor](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassctorTopic)

## Properties

[ControllingPlayer](#frlrfPacManClientComponentsGameScreenClassControllingPlayerTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [GameState](#frlrfPacManClientComponentsGameScreensGameplayScreenClassGameStateTopic) (inherited from [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)), [IsActive](#frlrfPacManClientComponentsGameScreenClassIsActiveTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [IsExiting](#frlrfPacManClientComponentsGameScreenClassIsExitingTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [IsPopup](#frlrfPacManClientComponentsGameScreenClassIsPopupTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [ScreenManager](#frlrfPacManClientComponentsGameScreenClassScreenManagerTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [ScreenState](#frlrfPacManClientComponentsGameScreenClassScreenStateTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [SoundBank](#frlrfPacManClientComponentsGameScreenClassSoundBankTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [TimeOffset](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassTimeOffsetTopic), [TransitionAlpha](#frlrfPacManClientComponentsGameScreenClassTransitionAlphaTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [TransitionOffTime](#frlrfPacManClientComponentsGameScreenClassTransitionOffTimeTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [TransitionOnTime](#frlrfPacManClientComponentsGameScreenClassTransitionOnTimeTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [TransitionPosition](#frlrfPacManClientComponentsGameScreenClassTransitionPositionTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic))

## Methods

[ApplyTimeStamp](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassApplyTimeStampTopic), [CreateTimeStamp](#frlrfPacManClientComponentsGameScreensGameplayScreenClassCreateTimeStampTopic) (inherited from [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)), [Draw](#frlrfPacManClientComponentsGameScreensGameplayScreenClassDrawTopic) (inherited from [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)), [Equals](http://msdn.microsoft.com/en-us/library/system.object.equals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ExitScreen](#frlrfPacManClientComponentsGameScreenClassExitScreenTopic) (inherited from [GameScreen](#frlrfPacManClientComponentsGameScreenClassTopic)), [Finalize](http://msdn.microsoft.com/en-us/library/system.object.finalize.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetHashCode](http://msdn.microsoft.com/en-us/library/system.object.gethashcode.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetType](http://msdn.microsoft.com/en-us/library/system.object.gettype.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [HandleInput](#frlrfPacManClientComponentsGameScreensGameplayScreenClassHandleInputTopic) (inherited from [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)), [Initialize](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassInitializeTopic), [LoadContent](#frlrfPacManClientComponentsGameScreensGameplayScreenClassLoadContentTopic) (inherited from [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)), [MemberwiseClone](http://msdn.microsoft.com/en-us/library/system.object.memberwiseclone.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [OnDeath](#frlrfPacManClientComponentsGameScreensGameplayScreenClassOnDeathTopic) (inherited from [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)), [OnPowerUpPickedUp](#frlrfPacManClientComponentsGameScreensGameplayScreenClassOnPowerUpPickedUpTopic) (inherited from [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)), [PlayGame](#frlrfPacManClientComponentsGameScreensGameplayScreenClassPlayGameTopic) (inherited from [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)), [ReferenceEquals](http://msdn.microsoft.com/en-us/library/system.object.referenceequals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [StartGame](#frlrfPacManClientComponentsGameScreensGameplayScreenClassStartGameTopic) (inherited from [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)), [ToString](http://msdn.microsoft.com/en-us/library/system.object.tostring.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [UnloadContent](#frlrfPacManClientComponentsGameScreensGameplayScreenClassUnloadContentTopic) (inherited from [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic)), [Update](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassUpdateTopic), [doTransition](#frlrfPacManClientComponentsGameScreensGameplayScreenClassdoTransitionTopic) (inherited from [GameplayScreen](#frlrfPacManClientComponentsGameScreensGameplayScreenClassTopic))

#### MultiplayerScreen Constructor

Initializes a new instance of the [MultiplayerScreen](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassTopic) class.

|  |
| --- |
| [Visual Basic]  **Public Sub New( \_  ByVal *networkManager* As INetworkManager \_ )** |

|  |
| --- |
| [C#]  **public MultiplayerScreen(  INetworkManager *networkManager* )** |

|  |
| --- |
| [C++]  **public:  MultiplayerScreen(  INetworkManager^ *networkManager* )** |

|  |
| --- |
| [JScript]  **public function MultiplayerScreen(  *networkManager* : INetworkManager );** |

## Parameters

*networkManager*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [MultiplayerScreen](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassTopic)

#### MultiplayerScreen.TimeOffset Property

Gets or sets .

|  |
| --- |
| [Visual Basic]  **Public Property TimeOffset() As** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) |

|  |
| --- |
| [C#]  **public** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **TimeOffset {get; set;}** |

|  |
| --- |
| [C++]  **public:  property** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **TimeOffset {** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **get( );  void set(** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) **value  ); }** |

|  |
| --- |
| [JScript]  **public function get TimeOffset() :** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**; public function set TimeOffset(value :** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [MultiplayerScreen](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassTopic)

#### MultiplayerScreen.ApplyTimeStamp Method

|  |
| --- |
| [Visual Basic]  **Public Sub ApplyTimeStamp( \_  ByVal *timeStamp* As TimeStamp, \_  ByVal *totalGameTime* As** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**, \_  ByVal *localID* As** [**Integer**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **ApplyTimeStamp(  TimeStamp *timeStamp*,** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) ***totalGameTime*,** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) ***localID* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **ApplyTimeStamp(  TimeStamp *timeStamp*,** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx) ***totalGameTime*,** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) ***localID* )** |

|  |
| --- |
| [JScript]  **public function ApplyTimeStamp(  *timeStamp* : TimeStamp,  *totalGameTime* :** [**TimeSpan**](http://msdn.microsoft.com/en-us/library/system.timespan.aspx)**,  *localID* :** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) **);** |

## Parameters

*timeStamp*

*totalGameTime*

*localID*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [MultiplayerScreen](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassTopic)

#### MultiplayerScreen.Initialize Method

Initializes the current screen

|  |
| --- |
| [Visual Basic]  **Public Overrides Sub Initialize()** |

|  |
| --- |
| [C#]  **public override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Initialize()** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Initialize()** |

|  |
| --- |
| [JScript]  **public function Initialize();** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [MultiplayerScreen](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassTopic)

#### MultiplayerScreen.Update Method

Updates this screene

|  |
| --- |
| [Visual Basic]  **Public Overrides Sub Update( \_  ByVal *gameTime* As IGameTime, \_  ByVal *otherScreenHasFocus* As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**, \_  ByVal *coveredByOtherScreen* As** [**Boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(  IGameTime *gameTime*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***otherScreenHasFocus*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***coveredByOtherScreen* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(  IGameTime^ *gameTime*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***otherScreenHasFocus*,** [**bool**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) ***coveredByOtherScreen* )** |

|  |
| --- |
| [JScript]  **public function Update(  *gameTime* : IGameTime,  *otherScreenHasFocus* :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx)**,  *coveredByOtherScreen* :** [**boolean**](http://msdn.microsoft.com/en-us/library/system.boolean.aspx) **);** |

## Parameters

*gameTime*

the current gametime

*otherScreenHasFocus*

If the gui has the focus

*coveredByOtherScreen*

If this screen is covered by another screen

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [MultiplayerScreen](#frlrfPacManClientComponentsGameScreensMultiplayerScreenClassTopic)

## PacManClient.Components.GameScreens.GamePlayScreens.GUI Namespace

## Classes

[GUIElement](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassTopic)

### GUIElement Class

[System.Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)

**PacManClient.Components.GameScreens.GamePlayScreens.GUI.GUIElement**

|  |
| --- |
| [Visual Basic]  **Public MustInherit Class GUIElement** |

|  |
| --- |
| [C#]  **public abstract class GUIElement** |

|  |
| --- |
| [C++]  **public ref class GUIElement abstract** |

|  |
| --- |
| [JScript]  **public abstract class GUIElement** |

## Requirements

**Namespace:** [PacManClient.Components.GameScreens.GamePlayScreens.GUI](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUI)

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

**Assembly:** PacMan (in PacMan.exe)

## Constructors

[GUIElement Constructor](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassctorTopic)

## Properties

[Size](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassSizeTopic), [Texture](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassTextureTopic)

## Methods

[Draw](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassDrawTopic), [Equals](http://msdn.microsoft.com/en-us/library/system.object.equals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [Finalize](http://msdn.microsoft.com/en-us/library/system.object.finalize.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetHashCode](http://msdn.microsoft.com/en-us/library/system.object.gethashcode.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [GetType](http://msdn.microsoft.com/en-us/library/system.object.gettype.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [LoadContent](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassLoadContentTopic), [MemberwiseClone](http://msdn.microsoft.com/en-us/library/system.object.memberwiseclone.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ReferenceEquals](http://msdn.microsoft.com/en-us/library/system.object.referenceequals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ToString](http://msdn.microsoft.com/en-us/library/system.object.tostring.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx))

#### GUIElement Constructor

Initializes a new instance of the [GUIElement](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassTopic) class.

|  |
| --- |
| [Visual Basic]  **Public Sub New( \_  ByVal *watchee* As MovableObject, \_  ByVal *position* As** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public GUIElement(  MovableObject *watchee*,** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) ***position* )** |

|  |
| --- |
| [C++]  **public:  GUIElement(  MovableObject^ *watchee*,** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) ***position* )** |

|  |
| --- |
| [JScript]  **public function GUIElement(  *watchee* : MovableObject,  *position* :** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **);** |

## Parameters

*watchee*

*position*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GUIElement](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassTopic)

#### GUIElement.Size Property

Gets .

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Property Size() As** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) |

|  |
| --- |
| [C#]  **public** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **Size {get;}** |

|  |
| --- |
| [C++]  **public:  property** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **Size {** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx) **get( ); }** |

|  |
| --- |
| [JScript]  **public function get Size() :** [**Vector2**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.vector2.aspx)**;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GUIElement](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassTopic)

#### GUIElement.Texture Property

Gets or sets .

|  |
| --- |
| [Visual Basic]  **Public Property Texture() As** [**Texture2D**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.texture2d.aspx) |

|  |
| --- |
| [C#]  **public** [**Texture2D**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.texture2d.aspx) **Texture {get; set;}** |

|  |
| --- |
| [C++]  **public:  property** [**Texture2D**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.texture2d.aspx)**^ Texture {** [**Texture2D**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.texture2d.aspx)**^ get( );  void set(** [**Texture2D**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.texture2d.aspx)**^ value  ); }** |

|  |
| --- |
| [JScript]  **public function get Texture() :** [**Texture2D**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.texture2d.aspx)**; public function set Texture(value :** [**Texture2D**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.texture2d.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GUIElement](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassTopic)

#### GUIElement.Draw Method

|  |
| --- |
| [Visual Basic]  **Public MustOverride Sub Draw( \_  ByVal *spriteBatch* As** [**SpriteBatch**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritebatch.aspx)**, \_  ByVal *layer* As** [**Integer**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public abstract** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Draw(** [**SpriteBatch**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritebatch.aspx) ***spriteBatch*,** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) ***layer* )** |

|  |
| --- |
| [C++]  **public:  virtual** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Draw(** [**SpriteBatch**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritebatch.aspx)**^ *spriteBatch*,** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) ***layer* ) abstract** |

|  |
| --- |
| [JScript]  **public abstract function Draw(  *spriteBatch* :** [**SpriteBatch**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.graphics.spritebatch.aspx)**,  *layer* :** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) **);** |

## Parameters

*spriteBatch*

*layer*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GUIElement](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassTopic)

#### GUIElement.LoadContent Method

|  |
| --- |
| [Visual Basic]  **Public MustOverride Sub LoadContent( \_  ByVal *contentManager* As** [**ContentManager**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.content.contentmanager.aspx) **\_ )** |

|  |
| --- |
| [C#]  **public abstract** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **LoadContent(** [**ContentManager**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.content.contentmanager.aspx) ***contentManager* )** |

|  |
| --- |
| [C++]  **public:  virtual** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **LoadContent(** [**ContentManager**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.content.contentmanager.aspx)**^ *contentManager* ) abstract** |

|  |
| --- |
| [JScript]  **public abstract function LoadContent(  *contentManager* :** [**ContentManager**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.content.contentmanager.aspx) **);** |

## Parameters

*contentManager*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [GUIElement](#frlrfPacManClientComponentsGameScreensGamePlayScreensGUIGUIElementClassTopic)

## PacManClient.Controller.Local Namespace

## Classes

[PlayerController](#frlrfPacManClientControllerLocalPlayerControllerClassTopic)

### PlayerController Class

Controls a movable object with user input

[System.Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)

PacManShared.Controllers.Controller

**PacManClient.Controller.Local.PlayerController**

|  |
| --- |
| [Visual Basic]  **Public Class PlayerController  Inherits Controller** |

|  |
| --- |
| [C#]  **public class PlayerController : Controller** |

|  |
| --- |
| [C++]  **public ref class PlayerController : public Controller** |

|  |
| --- |
| [JScript]  **public class PlayerController  extends Controller** |

## Requirements

**Namespace:** [PacManClient.Controller.Local](#frlrfPacManClientControllerLocal)

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

**Assembly:** PacMan (in PacMan.exe)

## Constructors

[PlayerController Constructor](#frlrfPacManClientControllerLocalPlayerControllerClassctorTopic)

## Properties

[Direction](#frlrfPacManClientControllerLocalPlayerControllerClassDirectionTopic), ID (inherited from **Controller**), [MovObjType](#frlrfPacManClientControllerLocalPlayerControllerClassMovObjTypeTopic), [Name](#frlrfPacManClientControllerLocalPlayerControllerClassNameTopic)

## Methods

[Equals](http://msdn.microsoft.com/en-us/library/system.object.equals.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [ToString](http://msdn.microsoft.com/en-us/library/system.object.tostring.aspx) (inherited from [Object](http://msdn.microsoft.com/en-us/library/system.object.aspx)), [Update](#frlrfPacManClientControllerLocalPlayerControllerClassUpdateTopic)

#### PlayerController Constructor

Constructor

|  |
| --- |
| [Visual Basic]  **Public Sub New( \_  ByVal *direction* As Direction, \_  ByVal *name* As** [**String**](http://msdn.microsoft.com/en-us/library/system.string.aspx)**, \_  ByVal *id* As** [**Integer**](http://msdn.microsoft.com/en-us/library/system.int32.aspx)**, \_  ByVal *index* As** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**, \_  ByVal *movObjType* As MovObjType, \_  ByVal *inputState* As** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic) **\_ )** |

|  |
| --- |
| [C#]  **public PlayerController(  Direction *direction*,** [**string**](http://msdn.microsoft.com/en-us/library/system.string.aspx) ***name*,** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) ***id*,** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx) ***index*,  MovObjType *movObjType*,** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic) ***inputState* )** |

|  |
| --- |
| [C++]  **public:  PlayerController(  Direction *direction*,** [**String**](http://msdn.microsoft.com/en-us/library/system.string.aspx)**^ *name*,** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx) ***id*,** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx) ***index*,  MovObjType *movObjType*,** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic)**^ *inputState* )** |

|  |
| --- |
| [JScript]  **public function PlayerController(  *direction* : Direction,  *name* :** [**String**](http://msdn.microsoft.com/en-us/library/system.string.aspx)**,  *id* :** [**int**](http://msdn.microsoft.com/en-us/library/system.int32.aspx)**,  *index* :** [**PlayerIndex**](http://msdn.microsoft.com/en-us/library/microsoft.xna.framework.playerindex.aspx)**,  *movObjType* : MovObjType,  *inputState* :** [**InputState**](#frlrfPacManClientComponentsInputStateClassTopic) **);** |

## Parameters

*direction*

the starting direction

*name*

The name of this controller

*id*

*index*

The playerindex of this controller

*movObjType*

What type this controller controlls

*inputState*

The input from inputdevices

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PlayerController](#frlrfPacManClientControllerLocalPlayerControllerClassTopic)

#### PlayerController.Direction Property

Gets or sets the direction

|  |
| --- |
| [Visual Basic]  **Public Overrides Property Direction() As Direction** |

|  |
| --- |
| [C#]  **public override Direction Direction {get; set;}** |

|  |
| --- |
| [C++]  **public:  property Direction Direction {  Direction get( );  void set(  Direction value  ); }** |

|  |
| --- |
| [JScript]  **public function get Direction() : Direction; public function set Direction(value : Direction);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PlayerController](#frlrfPacManClientControllerLocalPlayerControllerClassTopic)

#### PlayerController.MovObjType Property

Gets the type of the movable object this controller controlls

|  |
| --- |
| [Visual Basic]  **Public ReadOnly Overrides Property MovObjType() As MovObjType** |

|  |
| --- |
| [C#]  **public override MovObjType MovObjType {get;}** |

|  |
| --- |
| [C++]  **public:  property MovObjType MovObjType {  MovObjType get( ); }** |

|  |
| --- |
| [JScript]  **public function get MovObjType() : MovObjType;** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PlayerController](#frlrfPacManClientControllerLocalPlayerControllerClassTopic)

#### PlayerController.Name Property

Gets or sets the name

|  |
| --- |
| [Visual Basic]  **Public Overrides Property Name() As** [**String**](http://msdn.microsoft.com/en-us/library/system.string.aspx) |

|  |
| --- |
| [C#]  **public override** [**string**](http://msdn.microsoft.com/en-us/library/system.string.aspx) **Name {get; set;}** |

|  |
| --- |
| [C++]  **public:  property** [**String**](http://msdn.microsoft.com/en-us/library/system.string.aspx)**^ Name {** [**String**](http://msdn.microsoft.com/en-us/library/system.string.aspx)**^ get( );  void set(** [**String**](http://msdn.microsoft.com/en-us/library/system.string.aspx)**^ value  ); }** |

|  |
| --- |
| [JScript]  **public function get Name() :** [**String**](http://msdn.microsoft.com/en-us/library/system.string.aspx)**; public function set Name(value :** [**String**](http://msdn.microsoft.com/en-us/library/system.string.aspx)**);** |

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PlayerController](#frlrfPacManClientControllerLocalPlayerControllerClassTopic)

#### PlayerController.Update Method

Updates this controller

|  |
| --- |
| [Visual Basic]  **Public Overrides Sub Update( \_  ByVal *CurrentCell* As Cell \_ )** |

|  |
| --- |
| [C#]  **public override** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(  Cell *CurrentCell* )** |

|  |
| --- |
| [C++]  **public:** [**void**](http://msdn.microsoft.com/en-us/library/system.void.aspx) **Update(  Cell^ *CurrentCell* )** |

|  |
| --- |
| [JScript]  **public function Update(  *CurrentCell* : Cell );** |

## Parameters

*CurrentCell*

## Requirements

**Platforms:** Windows XP Professional x64 Edition, Windows XP SP2, Windows XP Starter Edition, Windows Vista x64 Edition, Windows Vista, Windows 7 x64 Edition, Windows 7

## See Also

Applies to: [PlayerController](#frlrfPacManClientControllerLocalPlayerControllerClassTopic)

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