# Contents


Windows.Gaming.XboxLive.Storage

- GameSaveBlobGetResult
  - Status
  - Value
- GameSaveBlobInfo
  - Name
  - Size
- GameSaveBlobInfoGetResult
  - Status
  - Value
- GameSaveBlobInfoQuery
  - GetBlobInfoAsync
  - GetItemCountAsync
- GameSaveContainer
  - CreateBlobInfoQuery
  - GetAsync
  - Name
  - Provider
  - ReadAsync
  - SubmitPropertySetUpdatesAsync
  - SubmitUpdatesAsync
- GameSaveContainerInfo
  - DisplayName
  - LastModifiedTime
  - Name
  - NeedsSync
  - TotalSize
- GameSaveContainerInfoGetResult
  - Status

Value
GameSaveContainerInfoQuery
GetContainerInfoAsync
GetItemCountAsync
GameSaveErrorStatus
GameSaveOperationResult
Status
GameSaveProvider
ContainersChangedSinceLastSync
CreateContainer
CreateContainerInfoQuery
DeleteContainerAsync
GetForUserAsync
GetRemainingBytesInQuotaAsync
GetSyncOnDemandForUserAsync
User
GameSaveProviderGetResult
Status
Value

# Windows.Gaming.XboxLive.Storage Windows.Gaming.XboxLive.Storage Windows.Gaming.XboxLive.Storage Namespace

Contains GameSaveProvider and GameSaveContainer classes used to create, save, enumerate, and load Xbox Live game saves.

> **Important**
>
> This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Introduction

Universal Windows Platform (UWP) apps running on PCs save local data in a location that is accessible to the local user, and is not inherently protected from user tampering.

You should consider applying your own encryption and validity checks to game save data in order to help prevent users from modifying the game saves outside of the game.

In addition, if your game is a cross-play game that allows game save sharing between Windows 10 and Xbox One, the Xbox One version of the game must perform any appropriate validation and decryption of the data during load time, in case the data was tampered with on a Windows 10 device.

## Classes

| | |
|---|---|
| `GameSaveBlobGetResult` `GameSaveBlobGetResult` `GameSaveBlobGetResult` | A collection of named game save blobs retrieved from a GameSaveContainer. |
| `GameSaveBlobInfo` `GameSaveBlobInfo` `GameSaveBlobInfo` | Contains information about a game save blob. Call GameSaveBlobInfoQuery.GetBlobInfoAsync to obtain a **GameSaveBlobInfo** instance. |
| `GameSaveBlobInfoGetResult` `GameSaveBlobInfoGetResult` `GameSaveBlobInfoGetResult` | Result of a GameSaveBlobInfoQuery.GetBlobInfoAsync operation. |
| `GameSaveBlobInfoQuery` `GameSaveBlobInfoQuery` `GameSaveBlobInfoQuery` | Enumerates the blobs in a GameSaveContainer. |
| `GameSaveContainer` `GameSaveContainer` `GameSaveContainer` | Contains a collection of data blobs that represent a single saved game. |
| `GameSaveContainerInfo` `GameSaveContainerInfo` `GameSaveContainerInfo` | Information about a game save container. |
| `GameSaveContainerInfoGetResult` `GameSaveContainerInfoGetResult` `GameSaveContainerInfoGetResult` | Result of a GameSaveContainerInfoQuery operation. |

| | |
|---|---|
| `GameSaveContainerInfoQuery`<br>`GameSaveContainerInfoQuery`<br>`GameSaveContainerInfoQuery` | Enumerates game save containers within a game save provider. |
| `GameSaveOperationResult`<br>`GameSaveOperationResult`<br>`GameSaveOperationResult` | Result of an asynchronous game save operation. |
| `GameSaveProvider` `GameSaveProvider`<br>`GameSaveProvider` | **GameSaveProvider** is used to create, save, enumerate, and load Xbox Live game saves. |
| `GameSaveProviderGetResult`<br>`GameSaveProviderGetResult`<br>`GameSaveProviderGetResult` | Result of a GetForUserAsync or GetSyncOnDemandForUserAsync. operation. |

## Enums

| | |
|---|---|
| `GameSaveErrorStatus` `GameSaveErrorStatus`<br>`GameSaveErrorStatus` | Success and failure codes returned by game save operations. |

# GameSaveBlobGetResult GameSaveBlobGetResult Game SaveBlobGetResult Class

A collection of named game save blobs retrieved from a GameSaveContainer.

### Declaration

```
public : sealed class GameSaveBlobGetResult
```

```
struct winrt::Windows::Gaming::XboxLive::Storage::GameSaveBlobGetResult
```

```
public sealed class GameSaveBlobGetResult
```

### Inheritance Hierarchy

None

## Remarks

**GameSaveBlobGetResult** is returned when GameSaveContainer.GetAsync completes, and contains the result of the asynchronous operation. If the operation completed with no errors, GameSaveBlobGetResult.Value contains the game save data.

> **Important**
>
> This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Properties

### Status

Status

Status

The status result of the asynchronous game save blob request.

### Value

Value

Value

Collection of named game save blobs.

## See Also

# GameSaveBlobGetResult.Status GameSaveBlobGetResult.Status GameSaveBlobGetResult.Status

In this Article

Edit

The status result of the asynchronous game save blob request.

```
public : GameSaveErrorStatus Status { get; }
```

```
GameSaveErrorStatus Status();
```

```
public GameSaveErrorStatus Status { get; }
```

Returns

GameSaveErrorStatus

Type: GameSaveErrorStatus

GameSaveErrorStatus containing the status result of the asynchronous game save blob request.

## Remarks

If Status is GameSaveErrorStatus.Ok, the operation completed successfully and GameSaveBlobGetResult.Value is valid.

See Also GameSaveBlobGetResultGameSaveBlobGetResultGameSaveBlobGetResult

# GameSaveBlobGetResult.Value GameSaveBlobGetResult.Value GameSaveBlobGetResult.Value

In this Article

Edit

Collection of named game save blobs.

```
public : IMapView<Platform::String, IBuffer> Value { get; }
```

```
IMapView<winrt::hstring, IBuffer> Value();
```

```
public IReadOnlyDictionary<string, IBuffer> Value { get; }
```

Returns
IReadOnlyDictionary<string, IBuffer>

Type: **IMapView<;String, IBuffer>;** [JavaScript/C++] | System.Collections.Generic.IReadOnlyDictionary<;String, IBuffer>; [.NET]

## Remarks

**Value** is valid only if GameSaveBlobGetResult.Status is GameSaveErrorStatus.Ok.

See Also GameSaveBlobGetResultGameSaveBlobGetResultGameSaveBlobGetResult

# GameSaveBlobInfo GameSaveBlobInfo GameSaveBlob Info Class

Contains information about a game save blob. Call GameSaveBlobInfoQuery.GetBlobInfoAsync to obtain a **GameSaveBlobInfo** instance.

### Declaration

```
public : sealed class GameSaveBlobInfo
```

```
struct winrt::Windows::Gaming::XboxLive::Storage::GameSaveBlobInfo
```

```
public sealed class GameSaveBlobInfo
```

### Inheritance Hierarchy

None

## Remarks

Call GameSaveContainer.CreateBlobInfoQuery to create a GameSaveBlobInfoQuery that contains **GameSaveBlobInfo** instances of the specified blobs.

**Important**

This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Properties

Name

Name

Name

Name of the blob.

Size

Size

Size

Size, in bytes, of the blob.

## See Also

# GameSaveBlobInfo.Name GameSaveBlobInfo.Name GameSaveBlobInfo.Name

In this Article

Edit

Name of the blob.

```
public : Platform::String Name { get; }
```

```
winrt::hstring Name();
```

```
public string Name { get; }
```

Returns
string

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

## Remarks

Blob names are used when writing blobs with SubmitUpdatesAsync or SubmitPropertySetUpdatesAsync, to request blobs when calling GameSaveContainer.GetAsync and GameSaveContainer.ReadAsync, to request blob info when calling GameSaveContainer.CreateBlobInfoQuery, and to identify blobs returned in GameSaveBlobGetResult.Value.

See Also GameSaveBlobInfoGameSaveBlobInfoGameSaveBlobInfo

# GameSaveBlobInfo.Size GameSaveBlobInfo.Size Game SaveBlobInfo.Size

In this Article

Edit

Size, in bytes, of the blob.

```
public : unsigned int Size { get; }
```

```
uint32_t Size();
```

```
public uint Size { get; }
```

Returns
uint

Type: **Number** [JavaScript] | System.UInt32 [.NET] | **uint32** [C++]

See Also GameSaveBlobInfoGameSaveBlobInfoGameSaveBlobInfo

# GameSaveBlobInfoGetResult GameSaveBlobInfoGet Result GameSaveBlobInfoGetResult Class

Result of a GameSaveBlobInfoQuery.GetBlobInfoAsync operation.

### Declaration

```
public : sealed class GameSaveBlobInfoGetResult
```

```
struct winrt::Windows::Gaming::XboxLive::Storage::GameSaveBlobInfoGetResult
```

```
public sealed class GameSaveBlobInfoGetResult
```

### Inheritance Hierarchy

None

## Remarks

GameSaveBlobInfoGetResult is returned when GameSaveBlobInfoQuery.GetBlobInfoAsync completes, and contains the result of the asynchronous operation. If the operation completed with no errors, GameSaveBlobInfoGetResult.Value contains the blob info.

**Important**

This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Properties

`Status`

`Status`

`Status`

Status result of the asynchronous game save blob info request.

`Value`

`Value`

`Value`

Information about a blob returned by GameSaveBlobInfoQuery.

## See Also

# GameSaveBlobInfoGetResult.Status GameSaveBlobInfoGetResult.Status GameSaveBlobInfoGetResult.Status

In this Article

Edit

Status result of the asynchronous game save blob info request.

```
public : GameSaveErrorStatus Status { get; }
```

```
GameSaveErrorStatus Status();
```

```
public GameSaveErrorStatus Status { get; }
```

Returns

GameSaveErrorStatus

Type: GameSaveErrorStatus

GameSaveErrorStatus containing the status result of the asynchronous game save blob info request.

## Remarks

If **Status** is GameSaveErrorStatus.Ok, the operation completed successfully and GameSaveBlobInfoGetResult.Value is valid.

See Also GameSaveBlobInfoGetResultGameSaveBlobInfoGetResultGameSaveBlobInfoGetResult

# GameSaveBlobInfoGetResult.Value GameSaveBlobInfoGetResult.Value GameSaveBlobInfoGetResult.Value

In this Article

Edit

Information about a blob returned by GameSaveBlobInfoQuery.

```
public : IVectorView<GameSaveBlobInfo> Value { get; }
```

```
IVectorView<GameSaveBlobInfo> Value();
```

```
public IReadOnlyList<GameSaveBlobInfo> Value { get; }
```

Returns
IReadOnlyList<GameSaveBlobInfo>

## Remarks

**Value** is valid only if GameSaveBlobInfoGetResult.Status is GameSaveErrorStatus.Ok.

See Also GameSaveBlobInfoGetResultGameSaveBlobInfoGetResultGameSaveBlobInfoGetResult

# GameSaveBlobInfoQuery GameSaveBlobInfoQuery GameSaveBlobInfoQuery Class

Enumerates the blobs in a GameSaveContainer.

### Declaration

```
public : sealed class GameSaveBlobInfoQuery
```

```
struct winrt::Windows::Gaming::XboxLive::Storage::GameSaveBlobInfoQuery
```

```
public sealed class GameSaveBlobInfoQuery
```

### Inheritance Hierarchy

None

## Remarks

Use GameSaveContainer.CreateBlobInfoQuery to create a **GameSaveBlobInfoQuery** instance.

Important

This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Methods

`GetBlobInfoAsync()`

`GetBlobInfoAsync()`

`GetBlobInfoAsync()`

Asynchronously retrieves information for all blobs that match this query.

`GetBlobInfoAsync(UInt32, UInt32)`

`GetBlobInfoAsync(UInt32, UInt32)`

`GetBlobInfoAsync(UInt32, UInt32)`

Asynchronously retrieves information for the specified subset of blobs that match this query.

`GetItemCountAsync()`

`GetItemCountAsync()`

`GetItemCountAsync()`

Retrieves the number of blobs that match the query that created this GameSaveBlobInfoQuery object.

## See Also

# GameSaveBlobInfoQuery.GetBlobInfoAsync GameSaveBlobInfoQuery.GetBlobInfoAsync GameSaveBlobInfoQuery.GetBlobInfoAsync

In this Article

## Overloads

| | |
|---|---|
| GetBlobInfoAsync() GetBlobInfoAsync() GetBlobInfoAsync() | Asynchronously retrieves information for all blobs that match this query. |
| GetBlobInfoAsync(UInt32, UInt32) GetBlobInfoAsync(UInt32, UInt32) GetBlobInfoAsync(UInt32, UInt32) | Asynchronously retrieves information for the specified subset of blobs that match this query. |

## GetBlobInfoAsync() GetBlobInfoAsync() GetBlobInfoAsync()

Edit

Asynchronously retrieves information for all blobs that match this query.

```
public : IAsyncOperation<GameSaveBlobInfoGetResult> GetBlobInfoAsync()
```

```
IAsyncOperation<GameSaveBlobInfoGetResult> GetBlobInfoAsync() const;
```

```
public IAsyncOperation<GameSaveBlobInfoGetResult> GetBlobInfoAsync()
```

Returns
IAsyncOperation<GameSaveBlobInfoGetResult>

Type: **IAsyncOperation<;GameSaveBlobInfoGetResult>;**

**IAsyncOperation<;GameSaveBlobInfoGetResult>;** that represents the state of the asynchronous operation.

Attributes DefaultOverloadAttribute OverloadAttribute RemoteAsyncAttribute

Remarks

After the asynchronous operation completes, check the Status property of the result to determine whether the operation succeeded with GameSaveErrorStatus.Ok.

## GetBlobInfoAsync(UInt32, UInt32) GetBlobInfoAsync(UInt32, UInt32) GetBlobInfoAsync(UInt32, UInt32)

Edit

Asynchronously retrieves information for the specified subset of blobs that match this query.

```
public : IAsyncOperation<GameSaveBlobInfoGetResult> GetBlobInfoAsync(unsigned int startIndex,
unsigned int maxNumberOfItems)
```

```
IAsyncOperation<GameSaveBlobInfoGetResult> GetBlobInfoAsync(uint32_t startIndex, uint32_t
maxNumberOfItems) const;
```

```
public IAsyncOperation<GameSaveBlobInfoGetResult> GetBlobInfoAsync(UInt32 startIndex, UInt32
maxNumberOfItems)
```

Parameters

startIndex UInt32

Type: **Number** [JavaScript] | System.UInt32 [.NET] | **uint32** [C++]

Index of the first item to return.

maxNumberOfItems UInt32

Type: **Number** [JavaScript] | System.UInt32 [.NET] | **uint32** [C++]

Maximum number of items to return.

Returns
IAsyncOperation<GameSaveBlobInfoGetResult>

Type: **IAsyncOperation<;GameSaveBlobInfoGetResult>;**

**IAsyncOperation<;GameSaveBlobInfoGetResult>;** that represents the state of the asynchronous operation.

Attributes OverloadAttribute RemoteAsyncAttribute

## Remarks

After the asynchronous operation completes, check the Status property of the result to determine whether the operation succeeded with GameSaveErrorStatus.Ok.

# GameSaveBlobInfoQuery.GetItemCountAsync GameSaveBlobInfoQuery.GetItemCountAsync GameSaveBlobInfoQuery.GetItemCountAsync

In this Article

Edit

Retrieves the number of blobs that match the query that created this GameSaveBlobInfoQuery object.

```
public : IAsyncOperation<unsigned int> GetItemCountAsync()
```

```
IAsyncOperation<uint32_t> GetItemCountAsync() const;
```

```
public IAsyncOperation<uint> GetItemCountAsync()
```

Returns

IAsyncOperation<uint>

Type: **IAsyncOperation<;UInt32>;**

**IAsyncOperation** that represents the state of the asynchronous operation.

Attributes RemoteAsyncAttribute

## Remarks

After the asynchronous operation completes, the operation result of the returned **IAsyncOperation** object contains the number of blobs that match this query.

See Also GameSaveBlobInfoQueryGameSaveBlobInfoQueryGameSaveBlobInfoQuery

# GameSaveContainer GameSaveContainer GameSave Container Class

Contains a collection of data blobs that represent a single saved game.

### Declaration

```
public : sealed class GameSaveContainer
```

```
struct winrt::Windows::Gaming::XboxLive::Storage::GameSaveContainer
```

```
public sealed class GameSaveContainer
```

### Inheritance Hierarchy

None

## Remarks

A GameSaveContainer represents a single saved game, and consists of a collection of data blobs that contain the save game data and are independently writable.

**Important**

This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Properties

`Name`

`Name`

`Name`

The name of this GameSaveContainer.

`Provider`

`Provider`

`Provider`

The provider that this container is stored in.

## Methods

`CreateBlobInfoQuery(String)`

`CreateBlobInfoQuery(String)`

`CreateBlobInfoQuery(String)`

Creates a GameSaveBlobInfoQuery instance that retrieves the game save blobs within this container with names that begin with the specified prefix.

`GetAsync(IIterable<String>)`

`GetAsync(IIterable<String>)`

```
GetAsync(IIterable<String>)
```

Asynchronously retrieves blobs from the container.

```
ReadAsync(IMapView<String, IBuffer>)
```


```
ReadAsync(IMapView<String, IBuffer>)
ReadAsync(IMapView<String, IBuffer>)
```


Reads blobs from this container, as specified by *blobsToRead*. The buffers passed in *blobsToRead* must be large enough to store the blob data.

```
SubmitPropertySetUpdatesAsync(IPropertySet, IIterable<String>, String)
```


```
SubmitPropertySetUpdatesAsync(IPropertySet, IIterable<String>, String)
SubmitPropertySetUpdatesAsync(IPropertySet, IIterable<String>, String)
```


Similar to SubmitUpdatesAsync, except that this method operates on a **PropertySet** instead of a mapped view (or dictionary in C#).

```
SubmitUpdatesAsync(IMapView<String, IBuffer>, IIterable<String>, String)
```


```
SubmitUpdatesAsync(IMapView<String, IBuffer>, IIterable<String>, String)
SubmitUpdatesAsync(IMapView<String, IBuffer>, IIterable<String>, String)
```


Submits a set of changes to the game save blobs in this container. Changes can be writes to blobs or the deletion of existing blobs. If the container doesn't exist, then a new one is created. All writes and updates are applied atomically. Attempting to write and delete the same blob results in an error. Only 16MB of data may be written per call.

## See Also

# GameSaveContainer.CreateBlobInfoQuery GameSave Container.CreateBlobInfoQuery GameSaveContainer. CreateBlobInfoQuery

In this Article

Edit

Creates a GameSaveBlobInfoQuery instance that retrieves the game save blobs within this container with names that begin with the specified prefix.

```
public : GameSaveBlobInfoQuery CreateBlobInfoQuery(Platform::String blobNamePrefix)
```

```
GameSaveBlobInfoQuery CreateBlobInfoQuery(winrt::hstring blobNamePrefix) const;
```

```
public GameSaveBlobInfoQuery CreateBlobInfoQuery(String blobNamePrefix)
```

Parameters

blobNamePrefix String

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

String name prefix of the blobs to retrieve.

Returns
GameSaveBlobInfoQuery

Type: GameSaveBlobInfoQuery

GameSaveBlobInfoQuery instance that retrieves blobs within this container with names that begin with *blobNamePrefix*.

## Remarks

If *blobNamePrefix* is null or empty the query matches all blobs in the container. Otherwise, it matches the blobs with names that begin with *blobNamePrefix*.

See Also GameSaveContainerGameSaveContainerGameSaveContainer

# GameSaveContainer.GetAsync GameSaveContainer.GetAsync GameSaveContainer.GetAsync

In this Article

Edit

Asynchronously retrieves blobs from the container.

```
public : IAsyncOperation<GameSaveBlobGetResult> GetAsync(IIterable<Platform::String> blobsToRead)
```

```
IAsyncOperation<GameSaveBlobGetResult> GetAsync(IIterable<winrt::hstring> blobsToRead) const;
```

```
public IAsyncOperation<GameSaveBlobGetResult> GetAsync(IEnumerable<String> blobsToRead)
```

Parameters

| | |
|---|---|
| blobsToRead | IEnumerable<String> |

Type: **IIterable<;String>;** [JavaScript/C++] | System.Collections.Generic.IEnumerable<;String>; [.NET]

String names of the blobs to read

Returns
IAsyncOperation<GameSaveBlobGetResult>

Type: **IAsyncOperation<;GameSaveBlobGetResult>;**

**IAsyncOperation<;GameSaveBlobGetResult>;** that represents the state of the asynchronous operation.

| | |
|---|---|
| Attributes | RemoteAsyncAttribute |

## Remarks

GetAsync allocates new buffers to store the returned data.

After the asynchronous operation completes, check the Status property of the result to determine whether the operation succeeded with GameSaveErrorStatus.Ok.

| | |
|---|---|
| See Also | GameSaveContainerGameSaveContainerGameSaveContainer |

# GameSaveContainer.Name GameSaveContainer.Name GameSaveContainer.Name

In this Article

Edit

The name of this GameSaveContainer.

```
public : Platform::String Name { get; }
```

```
winrt::hstring Name();
```

```
public string Name { get; }
```

Returns
string

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

Name of this GameSaveContainer.

## Remarks

The game save container name is used to identify containers created, updated, or returned by methods such as CreateContainer, DeleteContainerAsync, ContainersChangedSinceLastSync, CreateContainerInfoQuery, and GetContainerInfoAsync.

See Also GameSaveContainerGameSaveContainerGameSaveContainer

# GameSaveContainer.Provider GameSaveContainer.Provider GameSaveContainer.Provider

In this Article

Edit

The provider that this container is stored in.

```
public : GameSaveProvider Provider { get; }
```

```
GameSaveProvider Provider();
```

```
public GameSaveProvider Provider { get; }
```

Returns

GameSaveProvider

Type: GameSaveProvider

GameSaveProvider that this container is stored in.

See Also

GameSaveContainerGameSaveContainerGameSaveContainer

# GameSaveContainer.ReadAsync GameSaveContainer.ReadAsync GameSaveContainer.ReadAsync

In this Article

Edit

Reads blobs from this container, as specified by *blobsToRead*. The buffers passed in *blobsToRead* must be large enough to store the blob data.

```
public : IAsyncOperation<GameSaveOperationResult> ReadAsync(IMapView<Platform::String, IBuffer> blobsToRead)
```

```
IAsyncOperation<GameSaveOperationResult> ReadAsync(IMapView<winrt::hstring, IBuffer> blobsToRead) const;
```

```
public IAsyncOperation<GameSaveOperationResult> ReadAsync(IReadOnlyDictionary<String, IBuffer> blobsToRead)
```

Parameters

blobsToRead IReadOnlyDictionary<String, IBuffer>

Type: **IMapView<;String, IBuffer>;** [JavaScript/C++] | System.Collections.Generic.IReadOnlyDictionary<;String, IBuffer>; [.NET]

Collection of blob names and data buffers to receive blob data.

Returns IAsyncOperation<GameSaveOperationResult>

Type: **IAsyncOperation<;GameSaveOperationResult>;**

**IAsyncOperation<;GameSaveOperationResult>;** that represents the state of the asynchronous operation.

Attributes RemoteAsyncAttribute

## Remarks

Use GameSaveBlobInfoQuery to determine the required buffer size for each game save blob requested.

If the operation completes successfully, the length property of the returned buffers specifies the amount of data contained in each buffer.

**ReadAsync** differs from GetAsync in that **GetAsync** automatically allocates the required buffers for the blob data, and returns that data in a GameSaveBlobGetResult object. **ReadAsync** instead writes directly into the buffers passed in the *blobsToRead* parameter.

After the asynchronous operation completes, check the Status property of the result to determine whether the operation succeeded with GameSaveErrorStatus.Ok.

See Also GameSaveContainerGameSaveContainerGameSaveContainer

# GameSaveContainer.SubmitPropertySetUpdatesAsync
GameSaveContainer.SubmitPropertySetUpdatesAsync
GameSaveContainer.SubmitPropertySetUpdatesAsync

In this Article

Edit

Similar to SubmitUpdatesAsync, except that this method operates on a **PropertySet** instead of a mapped view (or dictionary in C#).

```
public : IAsyncOperation<GameSaveOperationResult> SubmitPropertySetUpdatesAsync(IPropertySet
blobsToWrite, IIterable<Platform::String> blobsToDelete, Platform::String displayName)
```

```
IAsyncOperation<GameSaveOperationResult> SubmitPropertySetUpdatesAsync(IPropertySet blobsToWrite,
IIterable<winrt::hstring> blobsToDelete, winrt::hstring displayName) const;
```

```
public IAsyncOperation<GameSaveOperationResult> SubmitPropertySetUpdatesAsync(IPropertySet
blobsToWrite, IEnumerable<String> blobsToDelete, String displayName)
```

Parameters

blobsToWrite IPropertySet

Type: IPropertySet

Collection of blob names and the data to write for each blob.

blobsToDelete IEnumerable<String>

Type: **IIterable<;String>;** [JavaScript/C++] | System.Collections.Generic.IEnumerable<;String>; [.NET]

Collection containing the string names of blobs to delete.

displayName String

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

The save game container's display name. Set this to the name that will be displayed for the game save.

Returns
IAsyncOperation<GameSaveOperationResult>

Type: **IAsyncOperation<;GameSaveOperationResult>;**

**IAsyncOperation<;GameSaveOperationResult>;** that represents the state of the asynchronous operation.

Attributes RemoteAsyncAttribute

## Remarks

This method can be called from JavaScript, unlike SubmitUpdatesAsync which requires creating a mapped view (or dictionary in C#).

*blobsToWrite* is a **PropertySet** that should contain key-value pairs of a blob name and a Windows.Storage.Streams.IBuffer (Windows.Storage.Streams.DataWriter, for example).

After the asynchronous operation completes, check the Status property of the result to determine whether the operation succeeded with GameSaveErrorStatus.Ok.

# GameSaveContainer.SubmitUpdatesAsync GameSave Container.SubmitUpdatesAsync GameSaveContainer. SubmitUpdatesAsync

In this Article

Edit

Submits a set of changes to the game save blobs in this container. Changes can be writes to blobs or the deletion of existing blobs. If the container doesn't exist, then a new one is created. All writes and updates are applied atomically. Attempting to write and delete the same blob results in an error. Only 16MB of data may be written per call.

```
public : IAsyncOperation<GameSaveOperationResult> SubmitUpdatesAsync(IMapView<Platform::String,
IBuffer> blobsToWrite, IIterable<Platform::String> blobsToDelete, Platform::String displayName)
```

```
IAsyncOperation<GameSaveOperationResult> SubmitUpdatesAsync(IMapView<winrt::hstring, IBuffer>
blobsToWrite, IIterable<winrt::hstring> blobsToDelete, winrt::hstring displayName) const;
```

```
public IAsyncOperation<GameSaveOperationResult> SubmitUpdatesAsync(IReadOnlyDictionary<String,
IBuffer> blobsToWrite, IEnumerable<String> blobsToDelete, String displayName)
```

Parameters

blobsToWrite IReadOnlyDictionary<String, IBuffer>

Type: **IMapView<;String, IBuffer>;** [JavaScript/C++] | System.Collections.Generic.IReadOnlyDictionary<;String, IBuffer>; [.NET]

Collection of blob names and the data to write for each blob. The max length for a blob name is 63 characters.

blobsToDelete IEnumerable<String>

Type: **IIterable<;String>;** [JavaScript/C++] | System.Collections.Generic.IEnumerable<;String>; [.NET]

Collection containing the string names of blobs to delete. The max length for a blob name is 63 characters.

displayName String

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

The save game container's display name. Set this to the name that will be displayed for the game save. The max length for the display name is 127 characters.

Returns
IAsyncOperation<GameSaveOperationResult>

Type: **IAsyncOperation<;GameSaveOperationResult>;**

**IAsyncOperation<;GameSaveOperationResult>;** that represents the state of the asynchronous operation.

Attributes RemoteAsyncAttribute

## Remarks

After the asynchronous operation completes, check the Status property of the result to determine whether the operation succeeded with GameSaveErrorStatus.Ok.

Each TitleID/SCID is limited to a total of 256MB of storage per user.

When a title has reached its storage limit for a user, calls to **SubmitUpdatesAsync** will fail.

If a blob name or the display name exceeds the max length, the game save will fail to upload.

**SubmitUpdatesAsync** calls must not assume that a future **SubmitUpdatesAsync** call will be completed successfully in order to leave the container in a valid state. Each **SubmitUpdatesAsync** call must leave the contents of the specified container in a valid state for the app to read later. For example, if a player purchases food with gold in a game, the new values for the gold and food should be updated in the same call to **SubmitUpdatesAsync**. This ensures that both values will be updated at the same time or in the event of a power failure or some other event preventing the update, both food and gold will still have their original values.

See Also GameSaveContainerGameSaveContainerGameSaveContainer

# GameSaveContainerInfo GameSaveContainerInfo Game SaveContainerInfo Class

Information about a game save container.

### Declaration

```
public : sealed class GameSaveContainerInfo
```

```
struct winrt::Windows::Gaming::XboxLive::Storage::GameSaveContainerInfo
```

```
public sealed class GameSaveContainerInfo
```

### Inheritance Hierarchy

None

## Remarks

**GameSaveContainerInfo** provides information about a game save container including its name, display name, modified time, and size.

> **Important**
>
> This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Properties

`DisplayName`

`DisplayName`

`DisplayName`

The name displayed to the user for this game save.

`LastModifiedTime`

`LastModifiedTime`

`LastModifiedTime`

Date and time that the game save container was last modified.

`Name`

`Name`

`Name`

The name of this game save container.

`NeedsSync`

`NeedsSync`

`NeedsSync`

Indicates whether the container needs to sync before updates can be submitted with SubmitUpdatesAsync or

SubmitPropertySetUpdatesAsync.

`TotalSize`

`TotalSize`

`TotalSize`

The total size, in bytes, of the game save container and its blobs.

# GameSaveContainerInfo.DisplayName GameSave ContainerInfo.DisplayName GameSaveContainerInfo. DisplayName

In this Article

Edit

The name displayed to the user for this game save.

```
public : Platform::String DisplayName { get; }
```

```
winrt::hstring DisplayName();
```

```
public string DisplayName { get; }
```

Returns
string

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

Display name of this game save.

## Remarks

Use SubmitUpdatesAsync or SubmitPropertySetUpdatesAsync to set the display name.

# GameSaveContainerInfo.LastModifiedTime GameSave ContainerInfo.LastModifiedTime GameSaveContainer Info.LastModifiedTime

In this Article

Edit

Date and time that the game save container was last modified.

```
public : DateTime LastModifiedTime { get; }
```

```
DateTime LastModifiedTime();
```

```
public DateTimeOffset LastModifiedTime { get; }
```

Returns
DateTimeOffset

Type: **Date** [JavaScript] | System.DateTimeOffset [.NET] | Windows::Foundation::DateTime [C++]

Date and time that the game save container was last modified.

See Also GameSaveContainerInfoGameSaveContainerInfoGameSaveContainerInfo

# GameSaveContainerInfo.Name GameSaveContainerInfo.Name GameSaveContainerInfo.Name

In this Article

Edit

The name of this game save container.

```
public : Platform::String Name { get; }
```

```
winrt::hstring Name();
```

```
public string Name { get; }
```

Returns
string

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

Name of this container.

## Remarks

The container name is used to identify the container, and is not the display name. See DisplayName.

See Also GameSaveContainerInfoGameSaveContainerInfoGameSaveContainerInfo

# GameSaveContainerInfo.NeedsSync GameSaveContainerInfo.NeedsSync GameSaveContainerInfo.NeedsSync

In this Article

Edit

Indicates whether the container needs to sync before updates can be submitted with SubmitUpdatesAsync or SubmitPropertySetUpdatesAsync.

```
public : Platform::Boolean NeedsSync { get; }
```

```
bool NeedsSync();
```

```
public bool NeedsSync { get; }
```

Returns
bool

Type: **Boolean** [JavaScript] | System.Boolean [.NET] | Platform::Boolean [C++]

True if the container needs to sync before updates can be submitted; false otherwise.

## Remarks

See GetSyncOnDemandForUserAsync for more information about sync-on-demand game save providers.

See Also GameSaveContainerInfoGameSaveContainerInfoGameSaveContainerInfo

# GameSaveContainerInfo.TotalSize GameSaveContainerInfo.TotalSize GameSaveContainerInfo.TotalSize

In this Article

Edit

The total size, in bytes, of the game save container and its blobs.

```
public : ulong TotalSize { get; }
```

```
ulong TotalSize();
```

```
public ulong TotalSize { get; }
```

Returns
ulong

Type: **Number** [JavaScript] | System.UInt64 [.NET] | **uint64** [C++]

Total size, in bytes, of the game save container and its blobs.

See Also GameSaveContainerInfoGameSaveContainerInfoGameSaveContainerInfo

# GameSaveContainerInfoGetResult GameSaveContainerInfoGetResult GameSaveContainerInfoGetResult Class

Result of a GameSaveContainerInfoQuery operation.

### Declaration

```
public : sealed class GameSaveContainerInfoGetResult
```

```
struct winrt::Windows::Gaming::XboxLive::Storage::GameSaveContainerInfoGetResult
```

```
public sealed class GameSaveContainerInfoGetResult
```

### Inheritance Hierarchy

None

## Remarks

**GameSaveContainerInfoGetResult** is returned when GameSaveContainerInfoQuery.GetContainerInfoAsync completes, and contains the result of the asynchronous operation. If the operation completed with no errors, GameSaveContainerInfoGetResult.Value has the container info.

> **Important**
>
> This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Properties

`Status`

`Status`

`Status`

Status result of the asynchronous game save container info request.

`Value`

`Value`

`Value`

A collection of container information returned by GameSaveContainerInfoQuery.

## See Also

# GameSaveContainerInfoGetResult.Status GameSave ContainerInfoGetResult.Status GameSaveContainerInfo GetResult.Status

In this Article

Edit

Status result of the asynchronous game save container info request.

```
public : GameSaveErrorStatus Status { get; }
```

```
GameSaveErrorStatus Status();
```

```
public GameSaveErrorStatus Status { get; }
```

Returns

GameSaveErrorStatus

Type: GameSaveErrorStatus

GameSaveErrorStatus containing the status result of the asynchronous game save container info request.

## Remarks

If **Status** is GameSaveErrorStatus.Ok, the operation completed successfully and GameSaveContainerInfoGetResult.Value is valid.

See Also GameSaveContainerInfoGetResultGameSaveContainerInfoGetResultGameSaveContainerInfoGetResult

# GameSaveContainerInfoGetResult.Value GameSave ContainerInfoGetResult.Value GameSaveContainerInfo GetResult.Value

In this Article

Edit

A collection of container information returned by GameSaveContainerInfoQuery.

```
public : IVectorView<GameSaveContainerInfo> Value { get; }
```

```
IVectorView<GameSaveContainerInfo> Value();
```

```
public IReadOnlyList<GameSaveContainerInfo> Value { get; }
```

Returns
IReadOnlyList<GameSaveContainerInfo>

Type: **IVectorView<;GameSaveContainerInfo>;** [JavaScript/C++] | System.Collections.Generic.IReadOnlyList<;GameSaveContainerInfo>; [.NET]

Collection of container information returned by GameSaveContainerInfoQuery.

## Remarks

**Value** is valid only if GameSaveContainerInfoGetResult.Status is GameSaveErrorStatus.Ok.

See Also GameSaveContainerInfoGetResultGameSaveContainerInfoGetResultGameSaveContainerInfoGetResult

# GameSaveContainerInfoQuery GameSaveContainerInfoQuery GameSaveContainerInfoQuery Class

Enumerates game save containers within a game save provider.

### Declaration

```
public : sealed class GameSaveContainerInfoQuery
```

```
struct winrt::Windows::Gaming::XboxLive::Storage::GameSaveContainerInfoQuery
```

```
public sealed class GameSaveContainerInfoQuery
```

### Inheritance Hierarchy

None

## Remarks

Use GameSaveProvider.CreateContainerInfoQuery to create a **GameSaveContainerInfoQuery** instance.

**Important**

This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Methods

`GetContainerInfoAsync()`

`GetContainerInfoAsync()`

`GetContainerInfoAsync()`

Asynchronously retrieves information for all game save containers that match this query. Containers are enumerated in order of the most recently modified first.

`GetContainerInfoAsync(UInt32, UInt32)`

`GetContainerInfoAsync(UInt32, UInt32)`

`GetContainerInfoAsync(UInt32, UInt32)`

Asynchronously retrieves information for the specified subset of game save containers that match this query. Containers are enumerated in order of the most recently modified first.

`GetItemCountAsync()`

`GetItemCountAsync()`

`GetItemCountAsync()`

Retrieves the number of containers that match the query that created this GameSaveContainerInfoQuery object.

## See Also

# GameSaveContainerInfoQuery.GetContainerInfoAsync GameSaveContainerInfoQuery.GetContainerInfoAsync GameSaveContainerInfoQuery.GetContainerInfoAsync

In this Article

## Overloads

| | |
|---|---|
| GetContainerInfoAsync() GetContainerInfoAsync() GetContainerInfoAsync() | Asynchronously retrieves information for all game save containers that match this query. Containers are enumerated in order of the most recently modified first. |
| GetContainerInfoAsync(UInt32, UInt32) GetContainerInfoAsync(UInt32, UInt32) GetContainerInfoAsync(UInt32, UInt32) | Asynchronously retrieves information for the specified subset of game save containers that match this query. Containers are enumerated in order of the most recently modified first. |

## GetContainerInfoAsync() GetContainerInfoAsync() GetContainerInfoAsync()

Edit

Asynchronously retrieves information for all game save containers that match this query. Containers are enumerated in order of the most recently modified first.

```
public : IAsyncOperation<GameSaveContainerInfoGetResult> GetContainerInfoAsync()
```

```
IAsyncOperation<GameSaveContainerInfoGetResult> GetContainerInfoAsync() const;
```

```
public IAsyncOperation<GameSaveContainerInfoGetResult> GetContainerInfoAsync()
```

Returns
IAsyncOperation<GameSaveContainerInfoGetResult>

Type: **IAsyncOperation<;GameSaveContainerInfoGetResult>;**

**IAsyncOperation<;GameSaveContainerInfoGetResult>;** that represents the state of the asynchronous operation.

Attributes DefaultOverloadAttribute OverloadAttribute RemoteAsyncAttribute

Remarks

After the asynchronous operation completes, check the Status property of the result to determine whether the operation succeeded with GameSaveErrorStatus.Ok.

## GetContainerInfoAsync(UInt32, UInt32) GetContainerInfoAsync(UInt32, UInt32) GetContainerInfoAsync(UInt32, UInt32)

Edit

Asynchronously retrieves information for the specified subset of game save containers that match this query. Containers are enumerated in order of the most recently modified first.

```
public : IAsyncOperation<GameSaveContainerInfoGetResult> GetContainerInfoAsync(unsigned int startIndex, unsigned int maxNumberOfItems)
```

```
IAsyncOperation<GameSaveContainerInfoGetResult> GetContainerInfoAsync(uint32_t startIndex, uint32_t maxNumberOfItems) const;
```

```
public IAsyncOperation<GameSaveContainerInfoGetResult> GetContainerInfoAsync(UInt32 startIndex, UInt32 maxNumberOfItems)
```

Parameters

startIndex UInt32

Type: **Number** [JavaScript] | System.UInt32 [.NET] | **uint32** [C++]

Index of the first item to return.

maxNumberOfItems UInt32

Type: **Number** [JavaScript] | System.UInt32 [.NET] | **uint32** [C++]

Maximum number of items to return.

Returns
IAsyncOperation<GameSaveContainerInfoGetResult>

Type: **IAsyncOperation<;GameSaveContainerInfoGetResult>;**

**IAsyncOperation<;GameSaveContainerInfoGetResult>;** that represents the state of the asynchronous operation.

Attributes OverloadAttribute RemoteAsyncAttribute

Remarks

After the asynchronous operation completes, check the Status property of the result to determine whether the operation succeeded with GameSaveErrorStatus.Ok.

# GameSaveContainerInfoQuery.GetItemCountAsync
GameSaveContainerInfoQuery.GetItemCountAsync
GameSaveContainerInfoQuery.GetItemCountAsync

In this Article

Edit

Retrieves the number of containers that match the query that created this GameSaveContainerInfoQuery object.

```
public : IAsyncOperation<unsigned int> GetItemCountAsync()
```

```
IAsyncOperation<uint32_t> GetItemCountAsync() const;
```

```
public IAsyncOperation<uint> GetItemCountAsync()
```

Returns
IAsyncOperation<uint>

Type: **IAsyncOperation<;UInt32>;**

Number of containers that match the query that created this GameSaveContainerInfoQuery object.

Attributes RemoteAsyncAttribute

## Remarks

After the asynchronous operation completes, the operation result of the returned **IAsyncOperation** object contains the number of blobs that match this query.

See Also GameSaveContainerInfoQueryGameSaveContainerInfoQueryGameSaveContainerInfoQuery

# GameSaveErrorStatus GameSaveErrorStatus GameSave ErrorStatus Enum

Success and failure codes returned by game save operations.

### Declaration

```
public : enum class GameSaveErrorStatus
```

```
enum class winrt::Windows::Gaming::XboxLive::Storage::GameSaveErrorStatus : int32_t
```

```
public enum GameSaveErrorStatus
```

### Inheritance Hierarchy

`None`

## Remarks

**Important**

This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Fields

| | |
|---|---|
| `Abort` `Abort` `Abort` | | **Abort** | **abort** | 0x80004004 | The operation was aborted. | |
| `BlobNotFound` `BlobNotFound` `BlobNotFound` | | **BlobNotFound** | **blobNotFound** | 0x80830008 | The operation failed because a blob with the given name was not found in the container. | |
| `ContainerNotInSync` `ContainerNotInSync` `ContainerNotInSync` | | **ContainerNotInSync** | **containerNotInSync** | 0x8083000A | The operation failed because the container does not exist locally. This error can when submitting updates to a container that needs to sync, and a read, delete, or blob query has not been issued on the container. | |
| `ContainerSyncFailed` `ContainerSyncFailed` `ContainerSyncFailed` | | **ContainerSyncFailed** | **containerSyncFailed** | 0x8083000B | The operation failed because the container could not be synced. This indicates that the user canceled a container sync due to not wanting to wait, or due to network failure and the user did not retry. This error can be returned by DeleteContainerAsync, ReadAsync, GetAsync, or a GameSaveBlobInfoQuery operation. | |
| `InvalidContainerName` `InvalidContainerName` `InvalidContainerName` | | **InvalidContainerName** | **invalidContainerName** | 0x80830001 | The specified container name is empty, contains invalid characters, or is too long. | |
| `NoAccess` `NoAccess` `NoAccess` | | **NoAccess** | **noAccess** | 0x80830002 | The operation failed because the title does not have write access to the container storage space. | |

| | |
|---|---|
| `NoXboxLiveInfo`<br>`NoXboxLiveInfo`<br>`NoXboxLiveInfo` | **NoXboxLiveInfo** \| **noXboxLiveInfo** \| 0x80830009 \| The operation failed because the title does not have a proper title id or service configuration id. |
| `ObjectExpired`<br>`ObjectExpired`<br>`ObjectExpired` | **ObjectExpired** \| **objectExpired** \| 0x8083000D \| The operation failed because the app has been suspended and the object is no longer valid. To perform game save operations after resuming, the app must request a new GameSaveProvider with GetForUserAsync or GetSyncOnDemandForUserAsync. |
| `Ok` `Ok` `Ok` | **Ok** \| **ok** \| 0 \| The operation completed successfully. |
| `OutOfLocalStorage`<br>`OutOfLocalStorage`<br>`OutOfLocalStorage` | **OutOfLocalStorage** \| **outOfLocalStorage** \| 0x80830003 \| The operation failed because there was not enough local storage available. Although the user was given the chance to free up some local storage they chose not to do so. |
| `ProvidedBufferTooSmall`<br>`ProvidedBufferTooSmall`<br>`ProvidedBufferTooSmall` | **ProvidedBufferTooSmall** \| **providedBufferTooSmall** \| 0x80830007 \| The operation failed because a buffer provided to read a blob was too small to receive the blob. |
| `QuotaExceeded`<br>`QuotaExceeded`<br>`QuotaExceeded` | **QuotaExceeded** \| **quotaExceeded** \| 0x80830006 \| The operation failed because the update would cause the storage space to exceed its quota. Use IGameSaveProvider.GetRemainingBytesInQuotaAsync to query the remaining quota space. |
| `UpdateTooBig`<br>`UpdateTooBig`<br>`UpdateTooBig` | **UpdateTooBig** \| **updateTooBig** \| 0x80830005 \| The operation failed because the update contained more than 16MB of data. |
| `UserCanceled`<br>`UserCanceled`<br>`UserCanceled` | **UserCanceled** \| **userCanceled** \| 0x80830004 \| The operation failed because the user canceled it. |
| `UserHasNoXboxLiveInfo`<br>`UserHasNoXboxLiveInfo`<br>`UserHasNoXboxLiveInfo` | **UserHasNoXboxLiveInfo** \| **userHasNoXboxLiveInfo** \| 0x8083000C \| The operation failed because there is no Xbox Live information associated with the user account. This error can returned by GetForUserAsync or GetSyncOnDemandForUserAsync. |

# GameSaveOperationResult GameSaveOperationResult GameSaveOperationResult Class

Result of an asynchronous game save operation.

### Declaration

```
public : sealed class GameSaveOperationResult
```

```
struct winrt::Windows::Gaming::XboxLive::Storage::GameSaveOperationResult
```

```
public sealed class GameSaveOperationResult
```

### Inheritance Hierarchy

None

## Remarks

**GameSaveOperationResult** is returned when an asynchronous game save operation completes, and contains the status result of the operation.

> **Important**
>
> This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Properties

Status

Status

Status

Status result of an asynchronous game save operation.

## See Also

# GameSaveOperationResult.Status GameSaveOperationResult.Status GameSaveOperationResult.Status

In this Article

Edit

Status result of an asynchronous game save operation.

```
public : GameSaveErrorStatus Status { get; }
```

```
GameSaveErrorStatus Status();
```

```
public GameSaveErrorStatus Status { get; }
```

Returns

GameSaveErrorStatus

Type: GameSaveErrorStatus

GameSaveErrorStatus containing the status result of the asynchronous game save operation.

See Also GameSaveOperationResultGameSaveOperationResultGameSaveOperationResult

# GameSaveProvider GameSaveProvider GameSave Provider Class

**GameSaveProvider** is used to create, save, enumerate, and load Xbox Live game saves.

Declaration

```
public : sealed class GameSaveProvider
```

```
struct winrt::Windows::Gaming::XboxLive::Storage::GameSaveProvider
```

```
public sealed class GameSaveProvider
```

Inheritance Hierarchy

None

## Remarks

Call GetForUserAsync or GetSyncOnDemandForUserAsync to obtain a **GameSaveProvider** instance.

Important

This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Properties

`ContainersChangedSinceLastSync`

`ContainersChangedSinceLastSync`

`ContainersChangedSinceLastSync`

Called on a new GameSaveProvider instance, returns the names of containers that have changed since the application last ran.

`User`

`User`

`User`

User associated with this game save provider and its game save containers.

## Methods

`CreateContainer(String)`

`CreateContainer(String)`

`CreateContainer(String)`

Creates a new GameSaveContainer to store a game save.

`CreateContainerInfoQuery()`

`CreateContainerInfoQuery()`

`CreateContainerInfoQuery()`

Creates a GameSaveContainerInfoQuery instance that enumerates all containers in this game save provider.

`CreateContainerInfoQuery(String)`

`CreateContainerInfoQuery(String)`

`CreateContainerInfoQuery(String)`

Creates a GameSaveContainerInfoQuery instance that enumerates the containers in this game save provider that have names that begin with the specified prefix.

`DeleteContainerAsync(String)`

`DeleteContainerAsync(String)`

`DeleteContainerAsync(String)`

Asynchronously deletes the specified game save container.

`GetForUserAsync(User, String)`

`GetForUserAsync(User, String)`

`GetForUserAsync(User, String)`

Gets a game save provider for the specified user.

`GetRemainingBytesInQuotaAsync()`

`GetRemainingBytesInQuotaAsync()`

`GetRemainingBytesInQuotaAsync()`

Get the bytes remaining in the user's quota for this game save provider.

`GetSyncOnDemandForUserAsync(User, String)`

`GetSyncOnDemandForUserAsync(User, String)`

`GetSyncOnDemandForUserAsync(User, String)`

Gets a partially-synced game save provider that syncs containers on demand.

## See Also

# GameSaveProvider.ContainersChangedSinceLastSync
GameSaveProvider.ContainersChangedSinceLastSync
GameSaveProvider.ContainersChangedSinceLastSync

In this Article

Edit

Called on a new GameSaveProvider instance, returns the names of containers that have changed since the application last ran.

```
public : IVectorView<Platform::String> ContainersChangedSinceLastSync { get; }
```

```
IVectorView<winrt::hstring> ContainersChangedSinceLastSync();
```

```
public IReadOnlyList<string> ContainersChangedSinceLastSync { get; }
```

Returns
IReadOnlyList<string>

Type: **IVectorView<;String>;** [JavaScript/C++] | System.Collections.Generic.IReadOnlyList<;String>; [.NET]

String names of containers that changed since the application last ran.

## Remarks

Game save containers can be written to from another device while an application is suspended or terminated. When the application resumes, **ContainersChangedSinceLastSync** will indicate the containers that were changed.

See Also GameSaveProviderGameSaveProviderGameSaveProvider

# GameSaveProvider.CreateContainer GameSaveProvider.CreateContainer GameSaveProvider.CreateContainer

In this Article

Edit

Creates a new GameSaveContainer to store a game save.

```
public : GameSaveContainer CreateContainer(Platform::String name)
```

```
GameSaveContainer CreateContainer(winrt::hstring name) const;
```

```
public GameSaveContainer CreateContainer(String name)
```

Parameters

name String

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

Name of the new game save container. The maximum length for the container name is 256 characters.

Returns
GameSaveContainer

Type: GameSaveContainer

A new, empty, named GameSaveContainer instance.

## Remarks

Valid characters for the path portion of the container name (up to and including the final forward slash) include uppercase letters (A-Z), lowercase letters (a-z), numbers (0-9), underscore (_), and forward slash (/). The path portion may be empty.

Valid characters for the filename portion (everything after the final forward slash) include uppercase letters (A-Z), lowercase letters (a-z), numbers (0-9), underscore (_), period (.), and hyphen (-). The filename may not be empty, end in a period, or contain two consecutive periods.

If *name* is invalid, the operation fails with GameSaveErrorStatus.InvalidContainerName.

The string specified in *name* is used to programmatically refer to the game save, and is not the display name shown to the user.

The returned GameSaveContainer is empty and contains no game save blobs.

Use GameSaveContainer.SubmitUpdatesAsync to write game save blobs to the container.

See Also GameSaveProviderGameSaveProviderGameSaveProvider

# GameSaveProvider.CreateContainerInfoQuery GameSaveProvider.CreateContainerInfoQuery GameSaveProvider.CreateContainerInfoQuery

In this Article

## Overloads

| | |
|---|---|
| CreateContainerInfoQuery() CreateContainerInfoQuery() CreateContainerInfoQuery() | Creates a GameSaveContainerInfoQuery instance that enumerates all containers in this game save provider. |
| CreateContainerInfoQuery(String) CreateContainerInfoQuery(String) CreateContainerInfoQuery(String) | Creates a GameSaveContainerInfoQuery instance that enumerates the containers in this game save provider that have names that begin with the specified prefix. |

## CreateContainerInfoQuery() CreateContainerInfoQuery() CreateContainerInfoQuery()

Edit

Creates a GameSaveContainerInfoQuery instance that enumerates all containers in this game save provider.

```
public : GameSaveContainerInfoQuery CreateContainerInfoQuery()
```

```
GameSaveContainerInfoQuery CreateContainerInfoQuery() const;
```

```
public GameSaveContainerInfoQuery CreateContainerInfoQuery()
```

Returns
GameSaveContainerInfoQuery

Type: GameSaveContainerInfoQuery

GameSaveContainerInfoQuery instance that enumerates all containers in this game save provider.

Attributes DefaultOverloadAttribute OverloadAttribute

Remarks

Call GetContainerInfoAsync on the returned object to retrieve container information. Containers are enumerated in order of the most recently modified first.

## CreateContainerInfoQuery(String) CreateContainerInfoQuery(String) CreateContainerInfoQuery(String)

Edit

Creates a GameSaveContainerInfoQuery instance that enumerates the containers in this game save provider that have names that begin with the specified prefix.

```
public : GameSaveContainerInfoQuery CreateContainerInfoQuery(Platform::String containerNamePrefix)
```

```
GameSaveContainerInfoQuery CreateContainerInfoQuery(winrt::hstring containerNamePrefix) const;
```

```
public GameSaveContainerInfoQuery CreateContainerInfoQuery(String containerNamePrefix)
```

Parameters

containerNamePrefix String

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

String name prefix of the containers to enumerate.

Returns
GameSaveContainerInfoQuery

Type: GameSaveContainerInfoQuery

GameSaveContainerInfoQuery instance that enumerates the containers in this game save provider that have names that begin with the specified prefix.

Attributes OverloadAttribute

Remarks

Call GetContainerInfoAsync on the returned object to retrieve container information.

# GameSaveProvider.DeleteContainerAsync GameSave Provider.DeleteContainerAsync GameSaveProvider. DeleteContainerAsync

In this Article

Edit

Asynchronously deletes the specified game save container.

```
public : IAsyncOperation<GameSaveOperationResult> DeleteContainerAsync(Platform::String name)
```

```
IAsyncOperation<GameSaveOperationResult> DeleteContainerAsync(winrt::hstring name) const;
```

```
public IAsyncOperation<GameSaveOperationResult> DeleteContainerAsync(String name)
```

Parameters

name String

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

String name of the container to delete.

Returns
IAsyncOperation<GameSaveOperationResult>

Type: **IAsyncOperation<;GameSaveOperationResult>;**

**IAsyncOperation<;GameSaveOperationResult>;** that represents the state of the asynchronous operation.

Attributes RemoteAsyncAttribute

## Remarks

After the asynchronous operation completes, check the Status property of the result to determine whether the operation succeeded with GameSaveErrorStatus.Ok.

See Also GameSaveProviderGameSaveProviderGameSaveProvider

# GameSaveProvider.GetForUserAsync GameSaveProvider.GetForUserAsync GameSaveProvider.GetForUserAsync

In this Article

Edit

Gets a game save provider for the specified user.

```
public : static IAsyncOperation<GameSaveProviderGetResult> GetForUserAsync(User user,
Platform::String serviceConfigId)
```

```
static IAsyncOperation<GameSaveProviderGetResult> GetForUserAsync(User user, winrt::hstring
serviceConfigId) const;
```

```
public static IAsyncOperation<GameSaveProviderGetResult> GetForUserAsync(User user, String
serviceConfigId)
```

Parameters

user User

Type: User

User who the game saves are for.

serviceConfigId String

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

The service configuration ID (SCID) used by your game.

Returns
IAsyncOperation<GameSaveProviderGetResult>

Type: **IAsyncOperation<;GameSaveProviderGetResult>;**

**IAsyncOperation<;GameSaveProviderGetResult>;** that represents the state of the asynchronous operation.

Attributes RemoteAsyncAttribute

## Remarks

GetForUserAsync obtains a GameSaveProvider instance for the specified user. After the asynchronous operation completes, check the Status property of the result to determine whether the operation succeeded with GameSaveErrorStatus.Ok.

Your title ID and service configuration ID (SCID) must be properly configured or this method will fail.

See Also GameSaveProviderGameSaveProviderGameSaveProvider

# GameSaveProvider.GetRemainingBytesInQuotaAsync
GameSaveProvider.GetRemainingBytesInQuotaAsync
GameSaveProvider.GetRemainingBytesInQuotaAsync

In this Article

Edit

Get the bytes remaining in the user's quota for this game save provider.

```
public : IAsyncOperation<long> GetRemainingBytesInQuotaAsync()
```

```
IAsyncOperation<long> GetRemainingBytesInQuotaAsync() const;
```

```
public IAsyncOperation<long> GetRemainingBytesInQuotaAsync()
```

Returns
IAsyncOperation<long>

Type: **IAsyncOperation<;Int64>;**

Remaining size, in bytes, of the user's quota for this game save provider.

Attributes RemoteAsyncAttribute

## Remarks

Each user has a per-game quota of data that can be stored in connected storage

See Also GameSaveProviderGameSaveProviderGameSaveProvider

# GameSaveProvider.GetSyncOnDemandForUserAsync
GameSaveProvider.GetSyncOnDemandForUserAsync
GameSaveProvider.GetSyncOnDemandForUserAsync

In this Article

Edit

Gets a partially-synced game save provider that syncs containers on demand.

```
public : static IAsyncOperation<GameSaveProviderGetResult> GetSyncOnDemandForUserAsync(User user,
Platform::String serviceConfigId)
```

```
static IAsyncOperation<GameSaveProviderGetResult> GetSyncOnDemandForUserAsync(User user,
winrt::hstring serviceConfigId) const;
```

```
public static IAsyncOperation<GameSaveProviderGetResult> GetSyncOnDemandForUserAsync(User user,
String serviceConfigId)
```

Parameters

user User

Type: User

User who the game saves are for.

serviceConfigId String

Type: **String** [JavaScript] | System.String [.NET] | Platform::String [C++]

The service configuration ID (SCID) used by your game.

Returns
IAsyncOperation<GameSaveProviderGetResult>

Type: **IAsyncOperation<;GameSaveProviderGetResult>;**

**IAsyncOperation<;GameSaveProviderGetResult>;** that represents the state of the asynchronous operation.

Attributes RemoteAsyncAttribute

## Remarks

A sync-on-demand provider is not guaranteed to have all containers synced locally. A sync is required when there is a conflict the user must resolve, or, more commonly, when the container has newer data in the cloud that must be downloaded. This condition is indicated by GameSaveContainerInfo.NeedsSync.

Calls to read, delete, or query blobs from a container will sync the container if it needs to sync.

Attempts to submit updates to a container will fail (with GameSaveErrorStatus.ContainerNotInSync ) while the container still needs to sync.

**GetSyncOnDemandForUserAsync** obtains a GameSaveProvider instance for the specified user. After the asynchronous operation completes, check the Status property of the result to determine whether the operation succeeded with GameSaveErrorStatus.Ok.

Your title ID and service configuration ID (SCID) must be properly configured or this method will fail.

See Also

GameSaveProviderGameSaveProviderGameSaveProvider

# GameSaveProvider.User GameSaveProvider.User Game SaveProvider.User

In this Article

Edit

User associated with this game save provider and its game save containers.

```
public : User User { get; }
```

```
User User();
```

```
public User User { get; }
```

Returns

User

Type: **User**

User associated with this game save provider and its game save containers.

See Also

GameSaveProviderGameSaveProviderGameSaveProvider

# GameSaveProviderGetResult GameSaveProviderGetResult GameSaveProviderGetResult Class

Result of a GetForUserAsync or GetSyncOnDemandForUserAsync. operation.

### Declaration

```
public : sealed class GameSaveProviderGetResult
```

```
struct winrt::Windows::Gaming::XboxLive::Storage::GameSaveProviderGetResult
```

```
public sealed class GameSaveProviderGetResult
```

### Inheritance Hierarchy

None

## Remarks

**GameSaveProviderGetResult** is returned when GetForUserAsync or GetSyncOnDemandForUserAsync. completes, and contains the result of the asynchronous operation. If the operation completed with no errors, GameSaveProviderGetResult.Value contains the game save provider.

> **Important**
>
> This API is targeted towards UWP games and apps with Xbox Live Enabled. Calls to these APIs made from sources that are not Xbox Live enabled will not be able to sync data to the cloud.

## Properties

`Status`

`Status`

`Status`

Status result of the asynchronous game save provider request.

`Value`

`Value`

`Value`

GameSaveProvider instance returned by a successful game save provider request.

## See Also

# GameSaveProviderGetResult.Status GameSaveProvider GetResult.Status GameSaveProviderGetResult.Status

In this Article

Edit

Status result of the asynchronous game save provider request.

```
public : GameSaveErrorStatus Status { get; }
```

```
GameSaveErrorStatus Status();
```

```
public GameSaveErrorStatus Status { get; }
```

Returns

GameSaveErrorStatus

Type: GameSaveErrorStatus

GameSaveErrorStatus containing the status result of the asynchronous game save provider request.

## Remarks

If **Status** is GameSaveErrorStatus.Ok, the operation completed successfully and GameSaveProviderGetResult.Value is valid.

See Also GameSaveProviderGetResultGameSaveProviderGetResultGameSaveProviderGetResult

# GameSaveProviderGetResult.Value GameSaveProviderGetResult.Value GameSaveProviderGetResult.Value

In this Article

Edit

GameSaveProvider instance returned by a successful game save provider request.

```
public : GameSaveProvider Value { get; }
```

```
GameSaveProvider Value();
```

```
public GameSaveProvider Value { get; }
```

Returns

GameSaveProvider

## Remarks

**Value** is valid only if GameSaveProviderGetResult.Status is GameSaveErrorStatus.Ok.

See Also GameSaveProviderGetResultGameSaveProviderGetResultGameSaveProviderGetResult