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Utilities for cryptographically secure hashing.

Class HashUtils

Namespace: [Uralstech](#).[UMoth](#)

Utilities for cryptographically secure hashing.

```
public static class HashUtils
```

Inheritance

object ← HashUtils

Methods

RandomNonceString(int)

Generates a cryptographically secure nonce of length `length`.

```
public static string RandomNonceString(int length = 32)
```

Parameters

`length` int

   The length of the nonce.

Returns

string

   The generated nonce.

Remarks

Loosely based on this Firebase example:

Exceptions

ArgumentException

Thrown if `length` is <= 0.

Sha256Hash(string)

Hashes a string using SHA256 and returns it encoded as a HEX string.

```
public static string Sha256Hash(string content)
```

Parameters

`content` string

The content to hash.

Returns

string

The hashed data as a HEX string.

Exceptions

ArgumentException

Thrown if `content` is [null](#)↗ or empty.

Namespace Uralstech.UMoth.AppleIdSignIn

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Class AppleIdCredential

Namespace: Uralstech.UMoth.AppleIdSignIn

An AppleID account credential.

```
public record AppleIdCredential
```

Inheritance

object ← AppleIdCredential

Constructors

AppleIdCredential(string, string?, AppleIdScope, string?, string?, string?, PersonNameComponents?, AppleIdUserDetectionStatus, AppleIdUserAgeRange)

```
protected AppleIdCredential(string userId, string? state, AppleIdScope scopes, string?
authorizationCode, string? identityToken, string? email, PersonNameComponents? fullName,
AppleIdUserDetectionStatus realUserStatus, AppleIdUserAgeRange userAgeRange)
```

Parameters

userId string

state string

scopes AppleIdScope

authorizationCode string

identityToken string

email string

fullName PersonNameComponents

realUserStatus AppleIdUserDetectionStatus

userAgeRange	AppleIdUserAgeRange

Fields

AuthorizationCode

A short-lived, one-time valid token that provides proof of authorization to the server component of the app. The authorization code is bound to the specific transaction using the state attribute passed in the authorization request. The server component of the app can validate the code using Apple's identity service endpoint provided for this purpose.

```
public readonly string? AuthorizationCode
```

Field Value

string

Email

An optional email shared by the user. This field is populated with a value that the user authorized.

```
public readonly string? Email
```

Field Value

string

FullName

An optional full name shared by the user. This field is populated with a value that the user authorized.

```
public readonly PersonNameComponents? FullName
```

Field Value

PersonNameComponents

IdentityToken

A JSON Web Token (JWT) used to communicate information about the identity of the user in a secure way to the app. The ID token will contain the following information: Issuer Identifier, Subject Identifier, Audience, Expiry Time and Issuance Time signed by Apple's identity service.

```
public readonly string? IdentityToken
```

Field Value

string

RealUserStatus

Check this property for a hint as to whether the current user is a "real user". See the documentation for ASUserDetectionStatus for guidelines on handling each status.

```
public readonly AppleIdUserDetectionStatus RealUserStatus
```

Field Value

AppleIdUserDetectionStatus

Scopes

This value will contain a list of scopes for which the user provided authorization. These may contain a subset of the requested scopes on @see ASAuthorizationAppleIDRequest. The application should query this value to identify which scopes were returned as it maybe different from ones requested.

```
public readonly AppleIdScope Scopes
```

Field Value

AppleIdScope

Remarks

TODO: Fix this, it always returns 0.

State

Data that's returned to you unmodified in the corresponding credential after a successful authentication.

```
public readonly string? State
```

Field Value

string

UserAgeRange

Check this property to determine whether the current user is a child. See the documentation for ASUserAgeRange for guidelines on handling each status.

```
public readonly AppleIdUserAgeRange UserAgeRange
```

Field Value

AppleIdUserAgeRange

UserId

An opaque user ID associated with the AppleID used for the sign in. This identifier will be stable across the 'developer team'.

```
public readonly string UserId
```

Field Value

string

Enum AppleIdCredentialState

Namespace: [Uralstech](#).[UMoth](#).[AppleIdSignIn](#)

Possible values for the credential state of a user.

```
public enum AppleIdCredentialState
```

Fields

Authorized = 1

The user is authorized.

NotFound = 2

The user hasn't established a relationship with Sign in with Apple.

PluginError = 255

An error was raised by the native plugin.

This is not a part of AppleIdCredentialState.

Revoked = 0

The given user's authorization has been revoked and they should be signed out.

Transferred = 3

The app has been transferred to a different team, and you need to migrate the user's identifier.

Enum AppleIdScope

Namespace: [Uralstech](#).[UMoth](#).[AppleIdSignIn](#)

The kinds of contact information that can be requested from the user.

```
[Flags]
public enum AppleIdScope
```

Fields

Email = 2

A scope that includes the user's full name.

FullName = 1

A scope that includes the user's email address.

None = 0

No scopes have been authorized.

Enum AppleIdSignInErrorCode

Namespace: [Uralstech](.).[UMoth](.).[AppleIdSignIn]

Errors that can occur during authorization.

```
public enum AppleIdSignInErrorCode
```

Fields

Canceled = 1001

The user canceled the authorization attempt.

CredentialExport = 1008

The credential export request failed.

CredentialImport = 1007

The credential import request failed.

Failed = 1004

The authorization attempt failed.

InvalidResponse = 1002

The authorization request received an invalid response.

MatchedExcludedCredential = 1006

This error should only be returned when specifying @c excludedCredentials on a public key credential registration request.

NotHandled = 1003

The authorization request wasn't handled.

NotInteractive = 1005

The authorization request isn't interactive.

PluginBusy = -2

The native plugin is already processing a sign in request.

This is not a part of ASAuthorizationError.Code but a custom error returned by the native plugin interface.

`Unknown = 1000`

The authorization attempt failed for an unknown reason.

`UnknownCredentialType = -1`

An unknown credential type was returned.

This is not a part of ASAuthorizationError.Code but a custom error returned by the native plugin.

Class AppleIdSignInManager

Namespace: <u>Uralstech</u>.<u>UMoth</u>.<u>AppleIdSignIn</u>

Class to handle AppleID account sign-in.

```
public class AppleIdSignInManager : DontCreateNewSingleton<AppleIdSignInManager>
```

Inheritance

object ← AppleIdSignInManager

Fields

OnGotCredentialState

Called when the credential state checking operation completes, with the state and any error that occurred.

```
public UnityEvent<AppleIdCredentialState, string?> OnGotCredentialState
```

Field Value

UnityEvent<<u>AppleIdCredentialState</u>, string>

OnSignInFailed

Called when the sign-in flow fails, with the failure reason.

```
public UnityEvent<AppleIdSignInErrorCode> OnSignInFailed
```

Field Value

UnityEvent<<u>AppleIdSignInErrorCode</u>>

OnSignedIn

Called when the sign-in flow succeeds, with the AppleID credential.

```
public UnityEvent<AppleIdCredential> OnSignedIn
```

Field Value

UnityEvent<[AppleIdCredential](#)>

Methods

Awake()

```
protected override void Awake()
```

GetCredentialState(string)

Returns the credential state for the given user in [OnGotCredentialState](#).

```
public void GetCredentialState(string userId)
```

Parameters

userId string

An opaque string associated with the Apple ID that your app receives in the credential's user property after performing a successful authentication request.

GetCredentialStateAsync(string, CancellationToken)

Returns the credential state for the given user.

```
public Awaitable<(AppleIdCredentialState state, string? errorDescription)>
GetCredentialStateAsync(string userId, CancellationToken token = default)
```

Parameters

`userId` string

An opaque string associated with the Apple ID that your app receives in the credential's user property after performing a successful authentication request.

`token` CancellationToken

Returns

Awaitable<([AppleIdCredentialState](#) state, string errorDescription)>

The state and any error that occurred.

ReadNameComponentsToManagedType(ref NativePersonNameComponents?)

Reads a [NativePersonNameComponents](#) object into an instance of [PersonNameComponents](#).

```
protected static PersonNameComponents? ReadNameComponentsToManagedType(ref
NativePersonNameComponents? nativeComponents)
```

Parameters

`nativeComponents` [NativePersonNameComponents](#)?

The native object to read.

Returns

[PersonNameComponents](#)

The managed object or [null⤢](#) if `nativeComponents` is [null⤢](#).

Remarks

While this method DOES NOT dispose of `nativeComponents`, it does dispose of its [Phonetic Representation](#).

SignIn(AppleIdScope, string?, string?)

Starts the AppleID Sign-In flow.

```
public void SignIn(AppleIdScope requestedScopes, string? nonce = null, string? state = null)
```

Parameters

requestedScopes [AppleIdScope](#)

The kinds of contact information that can be requested from the user.

nonce string

A string value to pass to the identity provider.

state string

Data that's returned to you unmodified in the corresponding credential after a successful authentication.

SignInAsync(AppleIdScope, string?, string?, CancellationToken)

Starts the AppleID Sign-In flow.

```
public Awaitable<(AppleIdCredential?, AppleIdSignInErrorCode)> SignInAsync(AppleIdScope
requestedScopes, string? nonce = null, string? state = null, CancellationToken token
= default)
```

Parameters

requestedScopes [AppleIdScope](#)

The kinds of contact information that can be requested from the user.

nonce string

A string value to pass to the identity provider.

state string

Data that's returned to you unmodified in the corresponding credential after a successful authentication.

`token` CancellationToken

Returns

Awaitable<([AppleIdCredential](), [AppleIdSignInErrorCode]())>

The AppleID credential or the failure reason.

Enum AppleIdUserAgeRange

Namespace: [Uralstech](#).[UMoth](#).[AppleIdSignIn](#)

Wrapper for ASUserAgeRange.

```
public enum AppleIdUserAgeRange
```

Fields

Child = 2

The user is a child.

NotAvailable = 0

The age range was not returned during the sign-in operation.

This is not a part of ASUserAgeRange, but is returned if the device or OS does not support ASUserAgeRange.

NotChild = 3

The user is not a child.

Unknown = 1

This is returned if the project is missing the required entitlement to support child accounts.

Enum AppleIdUserDetectionStatus

Namespace: [Uralstech](.).[UMoth](.).[AppleIdSignIn]

Wrapper for ASUserDetectionStatus.

```
public enum AppleIdUserDetectionStatus
```

Fields

LikelyReal = 2

A hint that we have high confidence that the user is real.

Unknown = 1

We could not determine the value. New users in the ecosystem will get this value as well, so you should not block these users, but instead treat them as any new user through standard email sign up flows.

Unsupported = 0

Not supported on current platform, ignore the value.

Class PersonNameComponents

Namespace: <u>Uralstech</u>.<u>UMoth</u>.<u>AppleIdSignIn</u>

The components of the user's name.

```
public record PersonNameComponents
```

Inheritance

object ← PersonNameComponents

Constructors

PersonNameComponents(string?, string?, string?, string?, string?, string?, PersonNameComponents?)

```
protected PersonNameComponents(string? namePrefix, string? givenName,
string? middleName, string? familyName, string? nameSuffix, string? nickname,
PersonNameComponents? phoneticRepresentation)
```

Parameters

namePrefix string

givenName string

middleName string

familyName string

nameSuffix string

nickname string

phoneticRepresentation <u>PersonNameComponents</u>

Fields

FamilyName

The user's family name, or its phonetic representation if this object is from [PhoneticRepresentation](#).

```
public readonly string? FamilyName
```

Field Value

string

GivenName

The user's given name, or its phonetic representation if this object is from [PhoneticRepresentation](#).

```
public readonly string? GivenName
```

Field Value

string

MiddleName

The user's middle name, or its phonetic representation if this object is from [PhoneticRepresentation](#).

```
public readonly string? MiddleName
```

Field Value

string

NamePrefix

Prefix to the user's name, or its phonetic representation if this object is from [PhoneticRepresentation](#).

```
public readonly string? NamePrefix
```

Field Value

string

NameSuffix

Suffix to the user's name, or its phonetic representation if this object is from [PhoneticRepresentation](#).

```
public readonly string? NameSuffix
```

Field Value

string

Nickname

The user's nickname, or its phonetic representation if this object is from [PhoneticRepresentation](#).

```
public readonly string? Nickname
```

Field Value

string

PhoneticRepresentation

Phonetic representation of this object's values.

```
public readonly PersonNameComponents? PhoneticRepresentation
```

Field Value

[PersonNameComponents](#)

Namespace Uralstech.UMoth.AppleIdSignIn.Native

Classes

[MemoryUtils](#)

Utilities for handling native memory.

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Interface for the native Swift plugin.

Structs

[NativeAppleIdCredential](#)

Wrapper for iOS's native ASAuthorizationAppleIDCredential.

[NativePersonNameComponents](#)

Wrapper for iOS's PersonNameComponents.

Delegates

[NativeCalls.GetCredentialStateCallback](#)

Callback delegate for when ASAuthorizationAppleIDProvider.getCredentialState() completes executing.

[NativeCalls.OnSignInFailedCallback](#)

Callback delegate for when AppleID Sign-In fails.

[NativeCalls.OnSignedInCallback](#)

Callback delegate for when AppleID Sign-In completes successfully.

Class MemoryUtils

Namespace: [Uralstech](#).[UMoth](#).[AppleIdSignIn](#).[Native](#)

Utilities for handling native memory.

```
public static class MemoryUtils
```

Inheritance

object ← MemoryUtils

Methods

ReadAnsiString(nint)

Read an ANSI string from a pointer.

```
public static string? ReadAnsiString(nint ptr)
```

Parameters

`ptr` nint

   The pointer to read from.

Returns

string

   The string read from the pointer, [null](#) if `ptr` is [null](#).

TryReleaseString(nint)

Tries to release a native string using [umoth_free_native_string(nint)](#)

```
public static void TryReleaseString(nint ptr)
```

Parameters

`ptr` nint

The pointer the string to release.

Struct NativeAppleIdCredential

Namespace: [Uralstech](#).[UMoth](#).[AppleIdSignIn](#).[Native](#)

Wrapper for iOS's native ASAuthorizationAppleIDCredential.

```
public struct NativeAppleIdCredential
```

Fields

AuthorizationCode

A short-lived, one-time valid token that provides proof of authorization to the server component of the app. The authorization code is bound to the specific transaction using the state attribute passed in the authorization request. The server component of the app can validate the code using Apple's identity service endpoint provided for this purpose.

```
public nint AuthorizationCode
```

Field Value

nint

Email

An optional email shared by the user. This field is populated with a value that the user authorized.

```
public nint Email
```

Field Value

nint

FullName

An optional full name shared by the user. This field is populated with a value that the user authorized.

```
public nint FullName
```

Field Value

nint

Remarks

This is an instance of [NativePersonNameComponents](). If it has not been unwrapped, it will be freed when this struct's [Dispose()]() is called. If unwrapped using [UnwrapFullName(),]() the caller is responsible for disposing the returned object.

IdentityToken

A JSON Web Token (JWT) used to communicate information about the identity of the user in a secure way to the app. The ID token will contain the following information: Issuer Identifier, Subject Identifier, Audience, Expiry Time and Issuance Time signed by Apple's identity service.

```
public nint IdentityToken
```

Field Value

nint

RealUserStatus

Check this property for a hint as to whether the current user is a "real user". See the documentation for ASUserDetectionStatus for guidelines on handling each status.

```
public byte RealUserStatus
```

Field Value

byte

Scopes

This value will contain a list of scopes for which the user provided authorization. These may contain a subset of the requested scopes on @see ASAuthorizationAppleIDRequest. The application should query this value to identify which scopes were returned as it maybe different from ones requested.

```
public byte Scopes
```

Field Value

byte

Remarks

TODO: Fix this, it always returns 0.

State

Data that's returned to you unmodified in the corresponding credential after a successful authentication.

```
public nint State
```

Field Value

nint

UserAgeRange

Check this property to determine whether the current user is a child. See the documentation for ASUserAgeRange for guidelines on handling each status.

```
public byte UserAgeRange
```

Field Value

byte

UserId

An opaque user ID associated with the AppleID used for the sign in. This identifier will be stable across the 'developer team'.

```
public nint UserId
```

Field Value

nint

Methods

Dispose()

Deallocates native resources.

```
public void Dispose()
```

Remarks

This struct has been intentionally not set as IDisposable to prevent accidental struct copies caused by "using" statements.

UnwrapFullName()

Unwraps [FullName](#) into an instance of [NativePersonNameComponents](#).

```
public NativePersonNameComponents? UnwrapFullName()
```

Returns

[NativePersonNameComponents](#)?

The unwrapped struct or [null](#) if [FullName](#) is a nullptr.

Remarks

This can only be called once, as after [FullName](#) is unwrapped, the reference is deallocated. This is to prevent multiple copies of the same memory from being created.

Class NativeCalls

Namespace: [Uralstech](#).[UMoth](#).[AppleIdSignIn](#).[Native](#)

Interface for the native Swift plugin.

```
public static class NativeCalls
```

Inheritance

object ← NativeCalls

Methods

umoth_appleid_auth_get_credential_state(string, GetCredentialStateCallback)

Returns the credential state for the given user in a completion handler.

```
public static extern void umoth_appleid_auth_get_credential_state(string userId,
    NativeCalls.GetCredentialStateCallback callback)
```

Parameters

`userId` string

An opaque string associated with the Apple ID that your app receives in the credential's user property after performing a successful authentication request.

`callback` [NativeCalls](#).[GetCredentialStateCallback](#)

A block the method calls to report the state and an optional error condition.

umoth_appleid_auth_start_sign_in(byte, string?, string?, OnSignedInCallback, OnSignInFailedCallback)

Starts an AppleID Sign-In request.

```
public static extern bool umoth_appleid_auth_start_sign_in(byte requestScopes, string?
nonce, string? state, NativeCalls.OnSignedInCallback onSignedInCallback,
NativeCalls.OnSignInFailedCallback onSignInFailedCallback)
```

Parameters

requestScopes byte

The data scopes to request from the user.

nonce string

An optional nonce for the request.

state string

An optional state for the request which will be returned in the resulting
ASAuthorizationAppleIDCredential.

onSignedInCallback NativeCalls.OnSignedInCallback

Success callback.

onSignInFailedCallback NativeCalls.OnSignInFailedCallback

Failure callback.

Returns

bool

If the request was executed successfully.

umoth_free_native_buffer(nint)

Frees up a buffer allocated from native code using Swift's UnsafeMutablePointer.allocate().

```
public static extern void umoth_free_native_buffer(nint ptr)
```

Parameters

ptr nint

The buffer to deallocate.

umoth_free_native_string(nint)

Frees up a string allocated from native code using strdup().

```
public static extern void umoth_free_native_string(nint ptr)
```

Parameters

`ptr` nint

The string to deallocate.

Delegate NativeCalls.GetCredentialStateCallback

Namespace: [Uralstech](#).[UMoth](#).[AppleIdSignIn](#).[Native](#)

Callback delegate for when ASAuthorizationAppleIDProvider.getCredentialState() completes executing.

```
public delegate void NativeCalls.GetCredentialStateCallback(byte state,
nint errorDescription)
```

Parameters

`state` byte

The state of the credential.

`errorDescription` nint

Any error which occurred while trying to get the state.

Delegate NativeCalls.OnSignInFailedCallback

Namespace: [Uralstech](.).[UMoth](.).[AppleIdSignIn](.).[Native](.)

Callback delegate for when AppleID Sign-In fails.

```
public delegate void NativeCalls.OnSignInFailedCallback(short errorCode)
```

Parameters

errorCode short

The error code.

Delegate NativeCalls.OnSignedInCallback

Namespace: Uralstech.UMoth.AppleIdSignIn.Native

Callback delegate for when AppleID Sign-In completes successfully.

```
public delegate void NativeCalls.OnSignedInCallback(NativeAppleIdCredential credential)
```

Parameters

credential NativeAppleIdCredential

The native ASAuthorizationAppleIDCredential wrapper.

Struct NativePersonNameComponents

Namespace: [Uralstech](#).[UMoth](#).[AppleIdSignIn](#).[Native](#)

Wrapper for iOS's PersonNameComponents.

```
public struct NativePersonNameComponents
```

Fields

FamilyName

The user's family name, or its phonetic representation if this struct is created from [Phonetic Representation](#).

```
public nint FamilyName
```

Field Value

nint

GivenName

The user's given name, or its phonetic representation if this struct is created from [Phonetic Representation](#).

```
public nint GivenName
```

Field Value

nint

MiddleName

The user's middle name, or its phonetic representation if this struct is created from [Phonetic Representation](#).

```
public nint MiddleName
```

Field Value

nint

NamePrefix

Prefix to the user's name, or its phonetic representation if this struct is created from [Phonetic Representation](#).

```
public nint NamePrefix
```

Field Value

nint

NameSuffix

Suffix to the user's name, or its phonetic representation if this struct is created from [Phonetic Representation](#).

```
public nint NameSuffix
```

Field Value

nint

Nickname

The user's nickname, or its phonetic representation if this struct is created from [PhoneticRepresentation](#).

```
public nint Nickname
```

Field Value

nint

PhoneticRepresentation

Phonetic representation of this struct's values.

```
public nint PhoneticRepresentation
```

Field Value

nint

Remarks

This is an instance of NativePersonNameComponents. If it has not been unwrapped, it will be freed when this struct's Dispose() is called. If unwrapped using UnwrapPhoneticRepresentation(), the caller is responsible for disposing the returned object.

Methods

Dispose()

Deallocates native resources.

```
public void Dispose()
```

Remarks

This struct has been intentionally not set as IDisposable to prevent accidental struct copies caused by "using" statements.

UnwrapPhoneticRepresentation()

Unwraps PhoneticRepresentation into an instance of NativePersonNameComponents.

```
public NativePersonNameComponents? UnwrapPhoneticRepresentation()
```

Returns

[NativePersonNameComponents](#)?

The unwrapped struct or [null](#)⧉ if [PhoneticRepresentation](#) is a nullptr.

Remarks

This can only be called once, as after [PhoneticRepresentation](#) is unwrapped, the reference is deallocated. This is to prevent multiple copies of the same memory from being created.

Namespace Uralstech.UMoth.GoogleSignIn

Classes

GoogleAuthCallbackReceiver

    Callback receiver for events from the native plugin.

GoogleIdTokenCredential

    Google ID token based credential.

GoogleSignInManager

    Class to handle Google account sign-in.

Interfaces

IGoogleAuthCallbackReceiver

    Callback receiver object for Google auth events.

Enums

GoogleSignInErrorCode

    Error codes for Sign-In failures.

Class GoogleAuthCallbackReceiver

Namespace: <u>Uralstech</u>.<u>UMoth</u>.<u>GoogleSignIn</u>

Callback receiver for events from the native plugin.

```
public class GoogleAuthCallbackReceiver : AndroidJavaProxy
```

Inheritance

object ← GoogleAuthCallbackReceiver

Constructors

GoogleAuthCallbackReceiver(IGoogleAuthCallbackReceiver)

```
public GoogleAuthCallbackReceiver(IGoogleAuthCallbackReceiver callbackReceiver)
```

Parameters

callbackReceiver <u>IGoogleAuthCallbackReceiver</u>

   The C# callback receiver for native plugin events.

Fields

NativeInterface

The fully qualified name of the Kotlin interface this class is implementing.

```
public const string NativeInterface = "com.uralstech.umoth.GoogleAuthCallbackReceiver"
```

Field Value

string

_callbackReceiver

The C# callback receiver for native plugin events.

```
protected IGoogleAuthCallbackReceiver _callbackReceiver
```

Field Value

[IGoogleAuthCallbackReceiver](#)

Methods

Invoke(string, nint)

```
public override nint Invoke(string methodName, nint javaArgs)
```

Parameters

`methodName` string

`javaArgs` nint

Returns

nint

Class GoogleIdTokenCredential

Namespace: Uralstech.UMoth.GoogleSignIn

Google ID token based credential.

```
public record GoogleIdTokenCredential
```

Inheritance

object ← GoogleIdTokenCredential

Constructors

GoogleIdTokenCredential(string?, string?, string?, string, string, string?, string?)

```
protected GoogleIdTokenCredential(string? displayName, string? familyName, string?
givenName, string emailId, string idToken, string? phoneNumber, string? profilePictureUri)
```

Parameters

`displayName` string

`familyName` string

`givenName` string

`emailId` string

`idToken` string

`phoneNumber` string

`profilePictureUri` string

Fields

DisplayName

Display name to show on the entry.

```
public readonly string? DisplayName
```

Field Value

string

EmailId

The email address associated with user's Google Account.

```
public readonly string EmailId
```

Field Value

string

FamilyName

User's family name.

```
public readonly string? FamilyName
```

Field Value

string

GivenName

User's given name.

```
public readonly string? GivenName
```

Field Value

string

IdToken

User's Google ID Token.

```
public readonly string IdToken
```

Field Value

string

PhoneNumber

User's stored phone number.

```
public readonly string? PhoneNumber
```

Field Value

string

ProfilePictureUri

User's profile picture uri.

```
public readonly string? ProfilePictureUri
```

Field Value

string

Enum GoogleSignInErrorCode

Namespace: [Uralstech](#).[UMoth](#).[GoogleSignIn](#)

Error codes for Sign-In failures.

```
public enum GoogleSignInErrorCode
```

Fields

GenericError = 0

Generic error from the native credential request.

InvalidGoogleIdResponse = 2

The Google ID token was not valid.

UnknownCredentialType = 1

The returned credential was not recognized.

Class GoogleSignInManager

Namespace: <u>Uralstech</u>.<u>UMoth</u>.<u>GoogleSignIn</u>

Class to handle Google account sign-in.

```
public class GoogleSignInManager : DontCreateNewSingleton<GoogleSignInManager>,
IGoogleAuthCallbackReceiver
```

Inheritance

object ← GoogleSignInManager

Implements

<u>IGoogleAuthCallbackReceiver</u>

Fields

AndroidNativeClass

The fully qualified name of the Kotlin plugin class.

```
public const string AndroidNativeClass = "com.uralstech.umoth.GoogleAuth"
```

Field Value

string

OnSignInFailed

Called when the sign-in flow fails, with the failure reason.

```
public UnityEvent<GoogleSignInErrorCode> OnSignInFailed
```

Field Value

UnityEvent<<u>GoogleSignInErrorCode</u>>

OnSignOutFailed

Called when the sign-out flow fails.

```
public UnityEvent OnSignOutFailed
```

Field Value

UnityEvent

OnSignedIn

Called when the sign-in flow succeeds, with the Google ID Token credential.

```
public UnityEvent<GoogleIdTokenCredential> OnSignedIn
```

Field Value

UnityEvent<GoogleIdTokenCredential>

OnSignedOut

Called when the sign-out flow succeeds.

```
public UnityEvent OnSignedOut
```

Field Value

UnityEvent

_callbackReceiver

The native callback receiver.

```
protected GoogleAuthCallbackReceiver _callbackReceiver
```

Field Value

[GoogleAuthCallbackReceiver](#)

_pluginInstance

The native plugin instance.

```
protected AndroidJavaObject? _pluginInstance
```

Field Value

AndroidJavaObject?

Properties

ServerClientId

The server's client ID to use as the audience for Google ID tokens generated during the sign-in.

```
public string ServerClientId { protected get; set; }
```

Property Value

string

Methods

Awake()

```
protected override void Awake()
```

OnDestroy()

```
protected void OnDestroy()
```

SignIn(string?, bool, bool)

Starts the Google Sign-In flow.

```
public void SignIn(string? nonce = null, bool filterByAuthorizedAccount = true, bool
autoSelectSignIn = true)
```

Parameters

`nonce` string

The nonce to use when generating a Google ID token.

`filterByAuthorizedAccount` bool

Whether to only allow the user to select from Google accounts that are already authorized to sign in
to your application.

`autoSelectSignIn` bool

The auto-select behavior in the request.

SignInAsync(string?, bool, bool, CancellationToken)

Starts the Google Sign-In flow.

```
public Awaitable<(GoogleIdTokenCredential?, GoogleSignInErrorCode)> SignInAsync(string?
nonce = null, bool filterByAuthorizedAccount = true, bool autoSelectSignIn = true,
CancellationToken token = default)
```

Parameters

`nonce` string

The nonce to use when generating a Google ID token.

`filterByAuthorizedAccount` bool

Whether to only allow the user to select from Google accounts that are already authorized to sign in to your application.

`autoSelectSignIn` bool

The auto-select behavior in the request.

`token` CancellationToken

Returns

Awaitable<([GoogleIdTokenCredential](), [GoogleSignInErrorCode]())>

The ID token credential or the failure reason.

SignOut()

Starts the sign-out flow.

```
public void SignOut()
```

SignOutAsync(CancellationToken)

Starts the sign-out flow.

```
public Awaitable<bool> SignOutAsync(CancellationToken token = default)
```

Parameters

`token` CancellationToken

Returns

Awaitable<bool>

If the operation was successful.

Interface IGoogleAuthCallbackReceiver

Namespace: <u>Uralstech</u>.<u>UMoth</u>.<u>GoogleSignIn</u>

Callback receiver object for Google auth events.

```
public interface IGoogleAuthCallbackReceiver
```

Methods

OnSignInFailed(GoogleSignInErrorCode)

Called when the sign-in flow fails.

```
void OnSignInFailed(GoogleSignInErrorCode reason)
```

Parameters

`reason` <u>GoogleSignInErrorCode</u>

  The reason for failure.

OnSignOutFailed()

Called when the sign-out flow fails.

```
void OnSignOutFailed()
```

OnSignedIn(GoogleIdTokenCredential)

Called when the sign-in flow succeeds.

```
void OnSignedIn(GoogleIdTokenCredential credential)
```

Parameters

credential [GoogleIdTokenCredential](#)

    The Google ID Token credential.

OnSignedOut()

Called when the sign-out flow succeeds.

```
void OnSignedOut()
```