

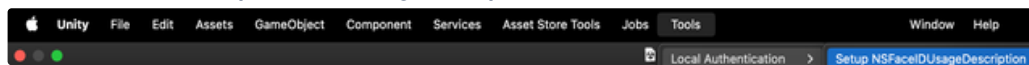
Local Authentication for iOS

Authenticate users biometrically or with a passphrase they already know.

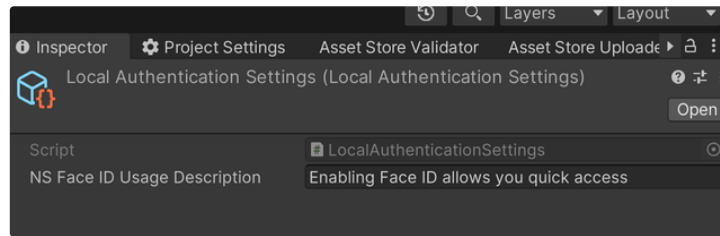
Setup

In any project that uses biometrics, need to include the **NSFaceIDUsageDescription** key in your app `Info.plist` file. Without this key, the system won't allow your app to use Face ID. The value for this key is a string that the system presents to the user the first time your app attempts to use Face ID. The string should clearly explain why your app needs access to this authentication mechanism. The system doesn't require a comparable usage description for Touch ID.

1. In the Local Authentication plugin, **NSFaceIDUsageDescription** is automatically added to `Info.plist` with your description. All you need to do is override the default description in `LocalAuthenticationSettings.asset`. You can select it by the top context menu **Tools** → **Local Authentication** → **Setup NSFaceIDUsageDescription**.

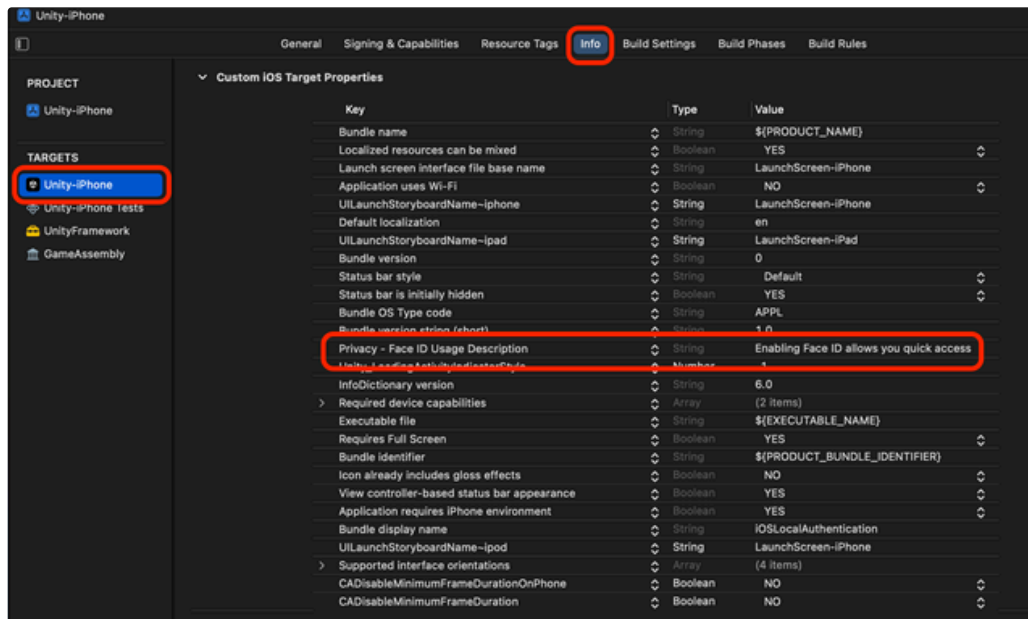


2. In field **NSFaceIDUsageDescription**, enter your reason to use biometrics.



⚠ If you don't change **NSFaceIDUsageDescription**, the default reason will be used: "Enabling Face ID allows you quick access".



After you build your project and open it in **Xcode**, you will see it in **Info.plist**.



Runtime

The **LocalAuthentication** class provides functionality for local authentication using Face ID, Touch ID, and password. Below are the methods available in this class and explanations on how to use them.

LocalAuthentication

| Member | Description |
|---|--|
| BiometryType GetAvailableBiometryType | Returns the available biometry type for the device. <div><pre>1 /// Biometry not available or not supported. 2 None = 0, 3 /// The device supports Touch ID. 4 TouchID = 1, 5 /// The device supports Face ID. 6 FaceID = 2, 7 /// The device is unknown 8 Unknown = 4</pre></div> |
| bool IsAuthenticationAvailable | Checks if any form of local authentication (Face id/TouchId/Password) is available on the device. <div><pre>1 True - if either biometric authentication (Face 2 False - if neither biometric nor password auth</pre></div> |
| void Authenticate (AuthenticationConfig , Action<AuthenticationResult>) | Authenticates the user using AuthenticationConfig , After the operation is completed, the callback delegate will be called with AuthenticationResult . <div><div> The result will be returned in the Unity thread.</div></div> |
| AuthenticationResult AuthenticateAsync (AuthenticationConfig) | Asynchronously variant of Authenticate method. After the operation is completed returned AuthenticationResult . <div><div> The result will be returned in the Unity thread.</div></div> |

AuthenticationConfig

| Member | Description |
|---|---|
| bool IsBiometryAsPriority | Indicate the priority of the need for biometrics. <div><hr/><p>If set to: true - the owner of the device will be authenticated only using biometric authentication (Touch ID or Face ID), if biometrics is not available, the Authenticate method will return a result with an LAErrorCode error and Success = False.</p><p>If you set a fallback button for the user, when it is pressed, the LAErrorCode.UserFallback and Success = False result will be returned.</p><hr/></div> |

| | |
|--------------------------------------|--|
| | <p>If set to: false - the device owner will be authenticated by biometrics (Touch ID or Face ID) or device password.</p> <p>If set a fallback button and click on it, system always will prompt user to enter a password.</p> <div> <p>i If any form of local authentication is unavailable on the device you will get LAErrorCode in AuthenticationResult.</p> <p>i It determines whether to use in native LAPolicy.deviceOwnerAuthenticationWithBiometrics (true) or LAPolicy.deviceOwnerAuthentication (false).</p> </div> |
| string LocalizedReason | <p>The user will be shown a text that contains the reason for the authentication request.</p> <p>If this is null or an empty string, the value "NSFaceIDUsageDescription" from the application's Info.plist will be used.</p> |
| string LocalizedCancelTitle | <p>A string that provides a localized title for the cancel button.</p> <p>If this is null or an empty string, the system default text for the cancel button will be used.</p> |
| string LocalizedFallbackTitle | <p>A string that provides a localized title for the fallback button.</p> <p>If this is set to an empty string, the fallback button will not be displayed.</p> <p>If this is set to null, the system default text for the fallback button will be used.</p> <div> <p>i</p> <ul style="list-style-type: none"> for IsBiometryAsPriority (false) - and empty string, default fallback button its called "Enter passcode" for IsBiometryAsPriority (true) - and empty string, default fallback button its called "Use password". </div> |

AuthenticationResult

| Member | Description |
|------------------------------|--|
| bool Success | Gets a value indicating whether the authentication was successful. |
| LAErrorCode ErrorCode | <p>Gets the error code if the authentication failed.</p> <div> <p>i If authentication was successful, this will be LAErrorCode.None</p> </div> |

BiometryType

| Member | Description |
|--------|-------------|
|--------|-------------|

| | |
|----------------|---|
| None | Biometry not available or not supported |
| TouchID | On the device available Touch ID . |
| FaceID | On the device available Face ID . |
| Unknown | The device biometry is unknown |

LAErrorCode

| Member | Description |
|-----------------------------|---|
| AuthenticationFailed | Authentication was not successful, because user failed to provide valid credentials. |
| UserCancel | Authentication was canceled by user (e.g. tapped Cancel button). |
| UserFallback | Authentication was canceled, because the user tapped the fallback button (example: Enter Password). |
| SystemCancel | Authentication was canceled by system (e.g. another application went to foreground). |
| PasscodeNotSet | Authentication could not start, because passcode is not set on the device. |
| BiometryNotAvailable | Authentication could not start, because biometry is not available on the device. |
| BiometryNotEnrolled | Authentication could not start, because biometry has no enrolled identities. |
| BiometryLockout | Authentication was not successful, because there were too many failed biometry attempts and biometry is now locked. |
| AppCancel | Authentication was canceled by application (e.g. invalidate was called while authentication was in progress). |
| InvalidContext | LAContext passed to this call has been previously invalidated. |
| BiometryNotPaired | Biometry is not paired. |
| NotInteractive | Authentication failed, because it was not interactive. |
| WatchNotAvailable | Authentication failed, because watch is not available. |
| BiometryDisconnected | Biometry is disconnected. |
| BiometryMissingECDH | Biometry is missing ECDH (Elliptic Curve Diffie-Hellman) key. |
| None | No error occurred. |
| Unknown | An unknown error occurred. |
| NotSupported | Authentication on platform not supported. |

Example [↗](#)

1. Authentication with default buttons, and with biometry or password.

```
1 var config = new AuthenticationConfig
2 {
3     IsBiometryAsPriority = false,
4     LocalizedReason = string.Empty,
5     LocalizedCancelTitle = string.Empty,
6     LocalizedFallbackTitle = string.Empty
7 };
8
9 LocalAuthentication.Authenticate(config, result =>
10 {
11     if(result.Success)
12         //add access
13     else
14         //show error
15 });
```

2. Asynchronously variant of authentication with default buttons, and with biometry or password.

```
1 var config = new AuthenticationConfig
2 {
3     IsBiometryAsPriority = false,
4     LocalizedReason = string.Empty,
5     LocalizedCancelTitle = string.Empty,
6     LocalizedFallbackTitle = string.Empty
7 };
8
9 var result = await LocalAuthentication.AuthenticateAsync(config);
10 if(result.Success)
11     //add access
12 else
13     //show error
```

3. Authentication with custom fallback button and only with biometry

```
1 var config = new AuthenticationConfig
2 {
3     IsBiometryAsPriority = true,
4     LocalizedReason = string.Empty,
5     LocalizedCancelTitle = string.Empty,
6     LocalizedFallbackTitle = "Use account password"
7 };
8
9 LocalAuthentication.Authenticate(config, result =>
10 {
11     if(result.Success)
12         //add access
13     else if(result.ErrorCode == LAErrorCode.UserFallback)
14         //use alternative method
15     else
16         //show error
17 });
```

4. Authentication without fallback button and used biometry or password.

```
1 var config = new AuthenticationConfig
2 {
3     IsBiometryAsPriority = false,
4     LocalizedReason = string.Empty,
5     LocalizedCancelTitle = string.Empty,
6     LocalizedFallbackTitle = null
7 };
8
9 LocalAuthentication.Authenticate(config, result =>
10 {
11     if(result.Success)
12         //add access
13     else
14         //show error
15 });
```