

```
import Foundation
```

```
/// A compiled model asset.
///
/// `MLModelAsset` is an abstraction of a compiled model, which can be:
///
/// - `.mlmodelc` bundle on the file system
/// - In-memory model specification
///
/// It provides the unified interface to query the model description and to instantiate
/// `MLModel`.
///
/// ```swift
/// // Creates an object.
/// let modelAsset = MLModelAsset(url: modelURL)
///
/// // Query the model description
/// let description = try await modelAsset.modelDescription
///
/// // Query the list of functions in the model asset.
/// let functionNames = try await modelAsset.functionNames
///
/// // Query the model description of a specific function.
/// let descriptionOfMyFunction = try await
modelAsset.modelDescription(of: "MyFunction")
///
/// // Instantiate `MLModel` for "MyFunction".
/// let modelConfiguration = MLModelConfiguration()
/// modelConfiguration.functionName = "MyFunction"
/// let model = try await MLModel.load(asset: modelAsset,
configuration: modelConfiguration)
/// ```
```

```
@available macOS 13.0
```

```
open class MLModelAsset : NSObject
```

```
    /// Construct a model asset from the contents of specification data.
    ///
    /// - Parameters:
    ///   - specificationData: Contents of .mlmodel as a data blob.
    ///   - error: When the model asset creation fails error is populated with
the reason for failure.
```

```
    @available macOS 13.0
```

```
    public convenience init
```

```
    Data throws
```

```
    /// Construct a model asset from an ML Program specification by replacing
blob file references with corresponding in-memory blobs.
```

```
    ///
```

```
    /// An ML Program may use `BlobFileValue` syntax, which stores the
blob data in external files and refers them by URL.
```

```

    /// This factory method enables in-memory workflow for such models by
    using the specified in-memory blob data in place of the external files.
    ///
    /// The format of in-memory blobs must be the same as the external files.
    The dictionary must contain all the reference URLs used in the specification.
    ///
    /// - Parameters:
    ///   - specification: Contents of .mlmodel as a data blob.
    ///   - blobMapping: A dictionary with blob URL as the key and blob
    data as the value.
    ///   - error: When the model asset creation fails error is populated with
    the reason for failure.

```

```

    @available(macOS 15.0)
    public convenience init
    Data URL Data throws

```

```

    /// Constructs a ModelAsset from a compiled model URL.
    ///
    /// - Parameters:
    ///   - compiledModelURL: Location on the disk where the model asset
    is present.
    ///   - error: Errors if the model asset is not loadable.
    ///
    /// - Returns: a model asset or nil if there is an error.

```

```

    @available(macOS 15.0)
    public convenience init URL throws

```

```

    /// The default model descripton.
    ///
    /// Use this method to get the description of the model such as the feature
    descriptions, the model author, and other metadata.
    ///
    /// For the multi-function model asset, this method vends the description for
    the default function. Use `modelDescription(for:)` to get the model
    description of other functions.

```

```

    ///
    /// ```swift
    /// let modelAsset = try MLModelAsset(url: modelURL)
    /// let modelDescription = try await
    modelAsset.modelDescription()
    /// print(modelDescription)
    /// ```

```

```

    @available(macOS 15.0)
    open func modelDescription
    @escaping MLModelDescription any Error Void

```

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    ///
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    ///
    /// ```swift
    /// let modelAsset = try MLModelAsset(url: modelURL)
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modelAsset.modelDescription()
    /// print(modelDescription)
    /// ```
    @available(macOS 15.0
    open var modelDescription MLModelDescription get async
throws

```

```

    /// The model descripton for a specified function.
    ///
    /// Use this method to get the description of the model such as the feature
    descriptions, the model author, and other metadata.
    ///
    /// ```swift
    /// let modelAsset = try MLModelAsset(url: modelURL)
    /// let modelDescription = try await
modelAsset.modelDescription(of: "my_function")
    /// print(modelDescription)
    /// ```
    @available(macOS 15.0
    open func modelDescription
String
MLModelDescription any Error @escaping
Void

```

```

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    ///
    /// Use this method to get the description of the model such as the feature
    descriptions, the model author, and other metadata.
    ///
    /// ```swift
    /// let modelAsset = try MLModelAsset(url: modelURL)
    /// let modelDescription = try await
modelAsset.modelDescription(of: "my_function")
    /// print(modelDescription)
    /// ```
    @available(macOS 15.0
    open func modelDescription String async
throws MLModelDescription

```

```

    /// The list of function names in the model asset.
    ///
    /// Some model types (e.g. ML Program) supports multiple functions. Use
    this method to query the function names.

```

```

    ///
    /// The method vends the empty array when the model doesn't use the multi-
function configuration.
    ///
    /// ```swift
    /// let modelAsset = try MLModelAsset(url: modelURL)
    /// let functionNames = try await modelAsset.functionNames
    /// print(functionNames) // For example, ["my_function1",
"my_function2"];
    /// ```
    @available(macOS 15.0
    open func functionNames
@escaping String any Error Void

    /// The list of function names in the model asset.
    ///
    /// Some model types (e.g. ML Program) supports multiple functions. Use
this method to query the function names.
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    /// The method vends the empty array when the model doesn't use the multi-
function configuration.
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    /// let modelAsset = try MLModelAsset(url: modelURL)
    /// let functionNames = try await modelAsset.functionNames
    /// print(functionNames) // For example, ["my_function1",
"my_function2"];
    /// ```
    @available(macOS 15.0
    open var functionNames String get async throws

```