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Namespace Uralstech.UBhashini

Classes

[BhashiniManager](#)

The script for managing all interactions with the Bhashini ULCA API.

Class BhashiniManager

Namespace: [Uralstech.UBhashini](#)

The script for managing all interactions with the Bhashini ULCA API.

```
public class BhashiniManager : Singleton<BhashiniManager>
```

Inheritance

object ← BhashiniManager

Fields

AuthUlcaApiKeyHeader

Header for the API key in pipeline config requests.

```
private const string AuthUlcaApiKeyHeader = "ulcaApiKey"
```

Field Value

string

AuthUserIdHeader

Header for the User ID in pipeline config requests.

```
private const string AuthUserIdHeader = "userId"
```

Field Value

string

PipelineConfigurationEndpoint

The pipeline configuration API endpoint.

```
public string PipelineConfigurationEndpoint
```

Field Value

string

PipelineProvider

The ID of the pipeline provider to use.

```
public string PipelineProvider
```

Field Value

string

_ulcaApiKey

The ULCA API key.

```
private string _ulcaApiKey
```

Field Value

string

_ulcaUserId

The ULCA account's user ID.

```
private string _ulcaUserId
```

Field Value

string

Methods

ComputeOnPipeline(BhashiniPipelineInferenceEndpoint, BhashiniInputData, params BhashiniComputeTask[])

Runs the given computation tasks on a pipeline.

```
public Task<BhashiniComputeResponse> ComputeOnPipeline(BhashiniPipelineInferenceEndpoint inferenceEndpoint, BhashiniInputData input, params BhashiniComputeTask[] tasks)
```

Parameters

inferenceEndpoint [BhashiniPipelineInferenceEndpoint](#)

The pipeline's inference endpoint.

input [BhashiniInputData](#)

Input data for the computation.

tasks [BhashiniComputeTask\[\]](#)

The tasks to run on the pipeline.

Returns

Task<[BhashiniComputeResponse](#)>

The computed results.

Exceptions

[BhashiniRequestException](#)

Thrown when the request fails or can't be processed.

[BhashiniAudioIOException](#)

Thrown when an unsupported audio encoding is encountered.

ConfigurePipeline(params BhashiniPipelineRequestTask[])

Configures a pipeline for the given tasks.

```
public Task<BhashiniPipelineResponse> ConfigurePipeline(params BhashiniPipelineRequestTask[] tasks)
```

Parameters

tasks [BhashiniPipelineRequestTask\[\]](#)

The pipeline tasks.

Returns

Task<[BhashiniPipelineResponse](#)>

The available pipeline configurations.

Exceptions

[BhashiniRequestException](#)

Thrown when the request fails or can't be processed.

SetDetails(string, string)

Sets the user ID and API key.

```
public void SetDetails(string ulcaUserId, string ulcaApiKey)
```

Parameters

ulcaUserId string

The new user ID.

ulcaApiKey string

The new API key.

Namespace Uralstech.UBhashini.Data

Classes

[BhashiniLanguageData](#)

Language data for requests.

[PipelineComputationExtensions](#)

QOL extensions for pipeline computation tasks and results.

Enums

[BhashiniTask](#)

The type of task a pipeline should compute.

[BhashiniVoiceType](#)

Class BhashiniLanguageData

Namespace: [Uralstech.UBhashini.Data](#)

Language data for requests.

```
public class BhashiniLanguageData
```

Inheritance

object ← BhashiniLanguageData

Fields

Source

The source language of the data.

```
public string Source
```

Field Value

string

Target

The target language of the data. For translation tasks.

```
public string Target
```

Field Value

string

Enum BhashiniTask

Namespace: [Uralstech.UBhashini.Data](#)

The type of task a pipeline should compute.

```
public enum BhashiniTask
```

Fields

`Default = 0`

Default value. Do not use.

`[EnumMember(Value = "asr")] SpeechToText = 1`

Speech To Text.

`[EnumMember(Value = "tts")] TextToSpeech = 3`

Text To Speech.

`[EnumMember(Value = "translation")] Translation = 2`

Translation.

Enum BhashiniVoiceType

Namespace: [Uralstech.UBhashini.Data](#)

```
public enum BhashiniVoiceType
```

Fields

`Default = 0`

Default value. Do not use.

`[EnumMember(Value = "female")] Female = 2`

Female voice.

`[EnumMember(Value = "male")] Male = 1`

Male voice.

`[EnumMember(Value = "non-specified")] NonSpecified = 4`

Non specified voice.

`[EnumMember(Value = "others")] Others = 5`

Other voice.

`[EnumMember(Value = "transgender")] Transgender = 3`

Trans voice.

Remarks

These enum values were taken from [SwaggerHub](#) and only [Male](#) and [Female](#) are guaranteed to work.

Class PipelineComputationExtensions

Namespace: [Uralstech.UBhashini.Data](#)

QOL extensions for pipeline computation tasks and results.

```
public static class PipelineComputationExtensions
```

Inheritance

object ← PipelineComputationExtensions

Methods

GetSpeechToTextResult(BhashiniComputeResponse)

Gets the transcribed text from a [BhashiniComputeResponse](#).

```
public static string GetSpeechToTextResult(this BhashiniComputeResponse pipelineResponse)
```

Parameters

pipelineResponse [BhashiniComputeResponse](#)

The current [BhashiniComputeResponse](#).

Returns

string

The transcribed text.

GetTextToSpeechResult(BhashiniComputeResponse)

Gets the audio from a [BhashiniComputeResponse](#).

```
public static Task<AudioClip> GetTextToSpeechResult(this BhashiniComputeResponse  
pipelineResponse)
```

Parameters

pipelineResponse [BhashiniComputeResponse](#)

The current [BhashiniComputeResponse](#).

Returns

Task<AudioClip>

The synthesized audio.

Remarks

This method only supports [Wav](#), [Mp3](#) and [Pcm](#)*.

*[Utilities.Audio](#) is required.

GetTranslateResult(BhashiniComputeResponse)

Gets the translated text from a [BhashiniComputeResponse](#).

```
public static string GetTranslateResult(this BhashiniComputeResponse pipelineResponse)
```

Parameters

pipelineResponse [BhashiniComputeResponse](#)

The current [BhashiniComputeResponse](#).

Returns

string

The translated text.

ToSpeechToTextTask(BhashiniPipelineTaskConfiguration, string, BhashiniAudioFormat, int)

Converts the current [BhashiniPipelineTaskConfiguration](#) to an STT [BhashiniComputeTask](#).

```
public static BhashiniComputeTask ToSpeechToTextTask(this BhashiniPipelineTaskConfiguration pipelineData, string sourceLanguage = null, BhashiniAudioFormat audioFormat = BhashiniAudioFormat.Wav, int sampleRate = 44100)
```

Parameters

pipelineData [BhashiniPipelineTaskConfiguration](#)

The current [BhashiniPipelineTaskConfiguration](#).

sourceLanguage string

The language of the speech. If [null](#), takes it from the [BhashiniPipelineTaskConfiguration](#).

audioFormat [BhashiniAudioFormat](#)

The format the audio should be sent in, defaults to [Wav](#).

sampleRate int

The sample rate of the audio, defaults to 44100.

Returns

[BhashiniComputeTask](#)

A configured [BhashiniComputeTask](#) object.

ToTextToSpeechTask(BhashiniPipelineTaskConfiguration, BhashiniVoiceType, string)

Converts the current [BhashiniPipelineTaskConfiguration](#) to a TTS [BhashiniComputeTask](#).

```
public static BhashiniComputeTask ToTextToSpeechTask(this BhashiniPipelineTaskConfiguration pipelineData, BhashiniVoiceType voiceType = BhashiniVoiceType.Default, string sourceLanguage = null)
```

Parameters

pipelineData [BhashiniPipelineTaskConfiguration](#)

The current [BhashiniPipelineTaskConfiguration](#).

voiceType [BhashiniVoiceType](#)

The voice type. If not given, takes the first available one from the [BhashiniPipelineTaskConfiguration](#).

sourceLanguage string

The language of the text. If [null](#), takes it from the [BhashiniPipelineTaskConfiguration](#).

Returns

[BhashiniComputeTask](#)

A configured [BhashiniComputeTask](#) object.

ToTranslateTask(BhashiniPipelineTaskConfiguration, string, string)

Converts the current [BhashiniPipelineTaskConfiguration](#) to a translation [BhashiniComputeTask](#).

```
public static BhashiniComputeTask ToTranslateTask(this BhashiniPipelineTaskConfiguration pipelineData, string sourceLanguage = null, string targetLanguage = null)
```

Parameters

pipelineData [BhashiniPipelineTaskConfiguration](#)

The current [BhashiniPipelineTaskConfiguration](#).

sourceLanguage string

The language of the input text. If [null](#), takes it from the [BhashiniPipelineTaskConfiguration](#).

targetLanguage string

The language of the output text. If [null](#), takes it from the [BhashiniPipelineTaskConfiguration](#).

Returns

[BhashiniComputeTask](#)

A configured [BhashiniComputeTask](#) object.

Namespace Uralstech.UBhashini.Data.Compute

Classes

[BhashiniAudioInput](#)

Audio input for STT requests, encoded in base64.

[BhashiniAudioOutput](#)

Audio output for TTS tasks.

[BhashiniComputeLanguageMetadata](#)

The language metadata for the text input/output.

[BhashiniComputeRequest](#)

Request for inferencing a pipeline. Response type is [BhashiniComputeResponse](#).

[BhashiniComputeResponse](#)

The result of a [BhashiniComputeRequest](#).

[BhashiniComputeResponseTask](#)

Response data for a computed task result.

[BhashiniComputeResponseTaskConfiguration](#)

The configuration of the task's result.

[BhashiniComputeTask](#)

A computation task for a pipeline.

[BhashiniComputeTaskConfiguration](#)

Configuration for a computation task.

[BhashiniInputData](#)

Input data for pipeline inference.

[BhashiniTextInput](#)

Text input for translation and TTS requests.

[BhashiniTextOutput](#)

Text output for STT and translation tasks.

Enums

[BhashiniAudioFormat](#)

Enum BhashiniAudioFormat

Namespace: [Uralstech.UBhashini.Data.Compute](#)

```
public enum BhashiniAudioFormat
```

Fields

Default = 0

Default value. Do not use.

[EnumMember(Value = "flac")] Flac = 4

FLAC

[EnumMember(Value = "mp3")] Mp3 = 3

MP3

[EnumMember(Value = "pcm")] Pcm = 2

PCM

[EnumMember(Value = "wav")] Wav = 1

WAV

Remarks

These enum values were taken from [SwaggerHub](#) and only [Wav](#) is guaranteed to work.

Class BhashiniAudioInput

Namespace: [Uralstech.UBhashini.Data.Compute](#)

Audio input for STT requests, encoded in base64.

```
public class BhashiniAudioInput
```

Inheritance

object ← BhashiniAudioInput

Constructors

BhashiniAudioInput(string)

```
public BhashiniAudioInput(string base64Data)
```

Parameters

base64Data string

Audio input for STT requests, encoded in base64.

Fields

Base64Data

Audio input for STT requests, encoded in base64.

```
public string Base64Data
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

Class BhashiniAudioOutput

Namespace: [Uralstech.UBhashini.Data.Compute](#)

Audio output for TTS tasks.

```
public class BhashiniAudioOutput
```

Inheritance

object ← BhashiniAudioOutput

Fields

AudioUri

A URI to the audio data.

```
public string AudioUri
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload> 

Base64Audio

Base64 encoded audio data.

```
public string Base64Audio
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload> 

Class BhashiniComputeLanguageMetadata

Namespace: [Uralstech.UBhashini.Data.Compute](#)

The language metadata for the text input/output.

```
public class BhashiniComputeLanguageMetadata
```

Inheritance

object ← BhashiniComputeLanguageMetadata

Fields

Language

The language code.

```
public string Language
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload> 

LanguageScript

The script code which the text was in.

```
public string LanguageScript
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload> 

Class BhashiniComputeRequest

Namespace: [Uralstech.UBhashini.Data.Compute](#)

Request for inferencing a pipeline. Response type is [BhashiniComputeResponse](#).

```
public class BhashiniComputeRequest
```

Inheritance

object ← BhashiniComputeRequest

Fields

Input

The input for the pipeline.

```
public BhashiniInputData Input
```

Field Value

[BhashiniInputData](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

Tasks

The tasks to be carried out by the pipeline.

```
public BhashiniComputeTask[] Tasks
```

Field Value

[BhashiniComputeTask\[\]](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

Class BhashiniComputeResponse

Namespace: [Uralstech.UBhashini.Data.Compute](#)

The result of a [BhashiniComputeRequest](#).

```
public class BhashiniComputeResponse
```

Inheritance

object ← BhashiniComputeResponse

Extension Methods

[PipelineComputationExtensions.GetSpeechToTextResult\(BhashiniComputeResponse\)](#) ,
[PipelineComputationExtensions.GetTextToSpeechResult\(BhashiniComputeResponse\)](#) ,
[PipelineComputationExtensions.GetTranslateResult\(BhashiniComputeResponse\)](#)

Fields

TaskResults

The results for each computed task.

```
public BhashiniComputeResponseTask[] TaskResults
```

Field Value

[BhashiniComputeResponseTask\[\]](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload> 

Class BhashiniComputeResponseTask

Namespace: [Uralstech.UBhashini.Data.Compute](#)

Response data for a computed task result.

```
public class BhashiniComputeResponseTask
```

Inheritance

object ← BhashiniComputeResponseTask

Fields

AudioOutputs

Audio output for TTS tasks.

```
public BhashiniAudioOutput[] AudioOutputs
```

Field Value

[BhashiniAudioOutput\[\]](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload> ↗

Task

The task type.

```
public BhashiniTask Task
```

Field Value

[BhashiniTask](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload>

TaskConfiguration

The configuration of the task's result. Can be [null](#) for translation tasks.

```
public BhashiniComputeResponseTaskConfiguration TaskConfiguration
```

Field Value

[BhashiniComputeResponseTaskConfiguration](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload>

TextOutputs

Text outputs for STT and translation tasks.

```
public BhashiniTextOutput[] TextOutputs
```

Field Value

[BhashiniTextOutput\[\]](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload>

Class

BhashiniComputeResponseTaskConfiguration

Namespace: [Uralstech.UBhashini.Data.Compute](#)

The configuration of the task's result.

```
public class BhashiniComputeResponseTaskConfiguration
```

Inheritance

object ← BhashiniComputeResponseTaskConfiguration

Fields

AdditionalData

Additional data.

```
public IDictionary<string, JToken> AdditionalData
```

Field Value

IDictionary<string, JToken>

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload> 

AudioFormat

Format of the input/output audio data.

```
public BhashiniAudioFormat AudioFormat
```

Field Value

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload>

LanguageMetadata

The language metadata for the text input/output.

```
public BhashiniComputeLanguageMetadata LanguageMetadata
```

Field Value

[BhashiniComputeLanguageMetadata](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload>

SampleRate

Sample rate of the input/output audio data.

```
public int SampleRate
```

Field Value

int

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload>

ServiceId

The service used to compute the result.

```
public string ServiceId
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload> 

Class BhashiniComputeTask

Namespace: [Uralstech.UBhashini.Data.Compute](#)

A computation task for a pipeline.

```
public class BhashiniComputeTask
```

Inheritance

object ← BhashiniComputeTask

Constructors

BhashiniComputeTask(BhashiniTask)

```
public BhashiniComputeTask(BhashiniTask type)
```

Parameters

type [BhashiniTask](#)

The task type.

BhashiniComputeTask(BhashiniTask, BhashiniPipelineTaskConfiguration)

```
public BhashiniComputeTask(BhashiniTask type, BhashiniPipelineTaskConfiguration configuration)
```

Parameters

type [BhashiniTask](#)

The task type.

configuration [BhashiniPipelineTaskConfiguration](#)

The task configuration from a [BhashiniPipelineResponse](#).

Fields

Configuration

The configuration for the task.

```
public BhashiniComputeTaskConfiguration Configuration
```

Field Value

[BhashiniComputeTaskConfiguration](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

Type

The task type.

```
public BhashiniTask Type
```

Field Value

[BhashiniTask](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

Class BhashiniComputeTaskConfiguration

Namespace: [Uralstech.UBhashini.Data.Compute](#)

Configuration for a computation task.

```
public class BhashiniComputeTaskConfiguration
```

Inheritance

object ← BhashiniComputeTaskConfiguration

Fields

AudioFormat

Only for STT requests. The format to encode the input audio in.

```
public BhashiniAudioFormat AudioFormat
```

Field Value

[BhashiniAudioFormat](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

Language

The language of the computation input and output.

```
public BhashiniLanguageData Language
```

Field Value

[BhashiniLanguageData](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

SampleRate

Only for STT requests. The sample rate of the input audio.

```
public int SampleRate
```

Field Value

int

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

ServiceId

The service to use for computation.

```
public string ServiceId
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

VoiceType

Only for TTS requests. The voice type.

```
public BhashiniVoiceType VoiceType
```

Field Value

[BhashiniVoiceType](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

Class BhashiniInputData

Namespace: [Uralstech.UBhashini.Data.Compute](#)

Input data for pipeline inference.

```
public class BhashiniInputData
```

Inheritance

object ← BhashiniInputData

Constructors

BhashiniInputData(string, string)

```
public BhashiniInputData(string text = null, string audio = null)
```

Parameters

text string

Text input for translation and TTS requests.

audio string

Base64 encoded audio input for STT requests.

Fields

AudioData

Audio input for STT requests.

```
public BhashiniAudioInput[] AudioData
```

Field Value

[BhashiniAudioInput\[\]](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

TextData

Text input for translation and TTS requests.

```
public BhashiniTextInput[] TextData
```

Field Value

[BhashiniTextInput\[\]](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

Class BhashiniTextInput

Namespace: [Uralstech.UBhashini.Data.Compute](#)

Text input for translation and TTS requests.

```
public class BhashiniTextInput
```

Inheritance

object ← BhashiniTextInput

Constructors

BhashiniTextInput(string)

```
public BhashiniTextInput(string data)
```

Parameters

data string

Text input for translation and TTS requests.

Fields

Data

Text input for translation and TTS requests.

```
public string Data
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/request-payload> 

Class BhashiniTextOutput

Namespace: [Uralstech.UBhashini.Data.Compute](#)

Text output for STT and translation tasks.

```
public class BhashiniTextOutput
```

Inheritance

object ← BhashiniTextOutput

Fields

Source

This is source text for translation tasks, transcribed output for STT tasks.

```
public string Source
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload> ↗

Target

Result for translation tasks.

```
public string Target
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-compute-call/response-payload> 

Namespace Uralstech.UBhashini.Data.Pipeline

Classes

[BhashiniPipelineConfiguration](#)

A list of supported pipeline configurations for a task.

[BhashiniPipelineInferenceEndpoint](#)

Endpoint for inferencing a pipeline.

[BhashiniPipelineInferenceKey](#)

The API key (Header, Token) for authenticating with the API.

[BhashiniPipelineRequest](#)

Request to configure a pipeline for inference. Response type is [BhashiniPipelineResponse](#).

[BhashiniPipelineRequestConfiguration](#)

Data on which pipeline provider to use.

[BhashiniPipelineRequestTask](#)

A specific task (like STT, TTS or translation) to be carried out by a pipeline.

[BhashiniPipelineRequestTaskConfiguration](#)

Data to configure a task for a pipeline request.

[BhashiniPipelineResponse](#)

Response of a [BhashiniPipelineRequest](#).

[BhashiniPipelineSupportedLanguages](#)

The supported languages for a pipeline's tasks.

[BhashiniPipelineTaskConfiguration](#)

A configuration for a pipeline's task.

Class BhashiniPipelineConfiguration

Namespace: [Uralstech.UBhashini.Data.Pipeline](#)

A list of supported pipeline configurations for a task.

```
public class BhashiniPipelineConfiguration
```

Inheritance

object ← BhashiniPipelineConfiguration

Fields

Configurations

The supported configurations.

```
public BhashiniPipelineTaskConfiguration[] Configurations
```

Field Value

[BhashiniPipelineTaskConfiguration\[\]](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

Type

The type of the task.

```
public BhashiniTask Type
```

Field Value

[BhashiniTask](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

Properties

First

Gets the first [BhashiniPipelineTaskConfiguration](#) in [Configurations](#).

```
public BhashiniPipelineTaskConfiguration First { get; }
```

Property Value

[BhashiniPipelineTaskConfiguration](#)

Class BhashiniPipelineInferenceEndpoint

Namespace: [Uralstech.UBhashini.Data.Pipeline](#)

Endpoint for inferencing a pipeline.

```
public class BhashiniPipelineInferenceEndpoint
```

Inheritance

object ← BhashiniPipelineInferenceEndpoint

Fields

ApiKey

The API key (Header, Token) for authenticating with the API.

```
public BhashiniPipelineInferenceKey ApiKey
```

Field Value

[BhashiniPipelineInferenceKey](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

CallbackUrl

The URI to call back to for inference.

```
public string CallbackUrl
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

IsMultilingual

```
public bool IsMultilingual
```

Field Value

bool

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

IsSynchronous

```
public bool IsSynchronous
```

Field Value

bool

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

Class BhashiniPipelineInferenceKey

Namespace: [Uralstech.UBhashini.Data.Pipeline](#)

The API key (Header, Token) for authenticating with the API.

```
public class BhashiniPipelineInferenceKey
```

Inheritance

object ← BhashiniPipelineInferenceKey

Fields

Header

The header to send the API key in.

```
public string Header
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

Token

The actual API key/token.

```
public string Token
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

Class BhashiniPipelineRequest

Namespace: [Uralstech.UBhashini.Data.Pipeline](#)

Request to configure a pipeline for inference. Response type is [BhashiniPipelineResponse](#).

```
public class BhashiniPipelineRequest
```

Inheritance

object ← BhashiniPipelineRequest

Fields

Configuration

Data on which pipeline provider to use.

```
public BhashiniPipelineRequestConfiguration Configuration
```

Field Value

[BhashiniPipelineRequestConfiguration](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/request-payload> 

Tasks

The tasks to be performed using the pipeline.

```
public BhashiniPipelineRequestTask[] Tasks
```

Field Value

[BhashiniPipelineRequestTask\[\]](#)

Remarks

As per the documentation:

This parameter takes an array of tasks, **in** the form of dictionary of taskType **as** defined above, that are to be done **by** the integrator. The sequence of tasks matter.

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/request-payload> 

Class BhashiniPipelineRequestConfiguration

Namespace: [Uralstech.UBhashini.Data.Pipeline](#)

Data on which pipeline provider to use.

```
public class BhashiniPipelineRequestConfiguration
```

Inheritance

object ← BhashiniPipelineRequestConfiguration

Fields

ProviderId

The ID of the pipeline provider.

```
public string ProviderId
```

Field Value

string

Remarks

As per the documentation:

pipelineId takes a **string value** of the specific pipeline integrator wants to use. The pipeline ID can be obtained either via Pipeline Search Call **or** via ULCA Web based **on** the description which helps the integrator to understand what a pipeline can **or** cannot **do**. Each pipeline ID may support multiple task **and** task sequences.

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/request-payload> [↗](#)

Class BhashiniPipelineRequestTask

Namespace: [Uralstech.UBhashini.Data.Pipeline](#)

A specific task (like STT, TTS or translation) to be carried out by a pipeline.

```
public class BhashiniPipelineRequestTask
```

Inheritance

object ← BhashiniPipelineRequestTask

Constructors

BhashiniPipelineRequestTask(BhashiniTask)

```
public BhashiniPipelineRequestTask(BhashiniTask type)
```

Parameters

type [BhashiniTask](#)

The type of the task.

BhashiniPipelineRequestTask(BhashiniTask, string, string)

```
public BhashiniPipelineRequestTask(BhashiniTask type, string sourceLanguage, string targetLanguage = null)
```

Parameters

type [BhashiniTask](#)

The type of the task.

sourceLanguage string

Source language for the task.

targetLanguage string

Target language for the task. Optional, only for translation.

Fields

Configuration

Optional extra configurations for the task.

```
public BhashiniPipelineRequestTaskConfiguration Configuration
```

Field Value

[BhashiniPipelineRequestTaskConfiguration](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/request-payload> 

Type

The type of the task.

```
public BhashiniTask Type
```

Field Value

[BhashiniTask](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/request-payload> 

Class

BhashiniPipelineRequestTaskConfiguration

Namespace: [Uralstech.UBhashini.Data.Pipeline](#)

Data to configure a task for a pipeline request.

```
public class BhashiniPipelineRequestTaskConfiguration
```

Inheritance

object ← BhashiniPipelineRequestTaskConfiguration

Fields

Language

Language configuration data for the pipeline.

```
public BhashiniLanguageData Language
```

Field Value

[BhashiniLanguageData](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/request-payload> [↗](#)

Class BhashiniPipelineResponse

Namespace: [Uralstech.UBhashini.Data.Pipeline](#)

Response of a [BhashiniPipelineRequest](#).

```
public class BhashiniPipelineResponse
```

Inheritance

object ← BhashiniPipelineResponse

Fields

InferenceEndpoint

The pipeline's inference endpoint.

```
public BhashiniPipelineInferenceEndpoint InferenceEndpoint
```

Field Value

[BhashiniPipelineInferenceEndpoint](#)

Remarks

As per the documentation:

This parameter helps the integrator to know the details of the Pipeline Compute Callwhere to **send** (callbackURL parameter) **and** shall be sent along **with** the Authorization Key-Value pair received under inferenceApiKey parameter which will be used **for** authentication of the same.

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

PipelineConfigurations

List of available pipeline configurations for the given tasks.

```
public BhashiniPipelineConfiguration[] PipelineConfigurations
```

Field Value

[BhashiniPipelineConfiguration\[\]](#)

Remarks

As per the documentation:

This parameter helps the integrator to obtain the Service ID **for** a particular task type **and language(s)** associated **with** that task.

The task types appearing here will be the same **as** the ones that the integrator requested **while** sending the pipelineTasks parameter **in** Request Payload e.g.

- Integrator request **for** configuration of the combination of ASR, Translation **and** TTS together, the pipelineResponseConfig parameter **in** the output will contain the JSON data **as** shown below. It will contain three dictionaries **for** each task type ASR, Translation **and** TTS. If Integrator requested **for** a combination of ASR **and** Translation, **this** parameter would contain JSON data **for** ASR **and** Translation only.

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

SupportedLanguages

The supported languages for the pipeline's tasks.

```
public BhashiniPipelineSupportedLanguages[] SupportedLanguages
```

Field Value

[BhashiniPipelineSupportedLanguages\[\]](#)

Remarks

As per the documentation:

This parameter helps integrator to know what languages are available that can be used **for** the requested pipeline tasks **in** that sequence.

For example, consider scenarios **where** Integrator requests **for** either:

- Individual Task i.e., either ASR **or** Translation **or** TTS **as** shown here:
<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/request-payload#integrators-want-to-do-individual-tasks>
- Combination of Tasks **in** that sequence i.e.,
 - ASR+Translation **or**
 - Translation+TTS **or**
 - ASR+Translation+TTS **as** shown here:
<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/request-payload#integrators-want-to-do-combination-of-tasks-in-that-order>

For Single Tasks, the understanding **is** straight-forward that the languages appearing **in** the response corresponds to that task. e.g.

- If the integrator wants to **do** only ASR, the languages appearing shows that Server can **do** ASR **in** these languages. In **this case**, parameters `sourceLanguage` **and** `targetLanguageList` will contain the same **value** since **for** ASR involves only one language unlike Translation **where** source **and target** (two) languages are involved. In **this case**, `targetLanguageList` can safely be ignored **and** only `sourceLanguage` can be used.

- If the integrator wants to **do** only TTS, the languages appearing shows that Server can **do** TTS **in** these languages. In **this case**, parameters `sourceLanguage` **and** `targetLanguageList` will contain the same **value** since **for** TTS too only one language **is** involved. In **this case** too, `targetLanguageList` can safely be ignored **and** only `sourceLanguage` can be used.

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

`_speechToTextConfiguration`

```
private BhashiniPipelineConfiguration _speechToTextConfiguration
```

Field Value

[BhashiniPipelineConfiguration](#)

`_textToSpeechConfiguration`

```
private BhashiniPipelineConfiguration _textToSpeechConfiguration
```

Field Value

[BhashiniPipelineConfiguration](#)

_translateConfiguration

```
private BhashiniPipelineConfiguration _translateConfiguration
```

Field Value

[BhashiniPipelineConfiguration](#)

Properties

SpeechToTextConfiguration

Gets the first [SpeechToText](#) type [BhashiniPipelineConfiguration](#) in [PipelineConfigurations](#).

```
public BhashiniPipelineConfiguration SpeechToTextConfiguration { get; }
```

Property Value

[BhashiniPipelineConfiguration](#)

TextToSpeechConfiguration

Gets the first [TextToSpeech](#) type [BhashiniPipelineConfiguration](#) in [PipelineConfigurations](#).

```
public BhashiniPipelineConfiguration TextToSpeechConfiguration { get; }
```

Property Value

[BhashiniPipelineConfiguration](#)

TranslateConfiguration

Gets the first [Translation](#) type [BhashiniPipelineConfiguration](#) in [PipelineConfigurations](#).

```
public BhashiniPipelineConfiguration TranslateConfiguration { get; }
```

Property Value

[BhashiniPipelineConfiguration](#)

Class BhashiniPipelineSupportedLanguages

Namespace: [Uralstech.UBhashini.Data.Pipeline](#)

The supported languages for a pipeline's tasks.

```
public class BhashiniPipelineSupportedLanguages
```

Inheritance

object ← BhashiniPipelineSupportedLanguages

Fields

SupportedSource

The supported source language for this task.

```
public string SupportedSource
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

SupportedTargets

The supported target language(s) for this task.

```
public string[] SupportedTargets
```

Field Value

string[]

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

Class BhashiniPipelineTaskConfiguration

Namespace: [Uralstech.UBhashini.Data.Pipeline](#)

A configuration for a pipeline's task.

```
public class BhashiniPipelineTaskConfiguration
```

Inheritance

object ← BhashiniPipelineTaskConfiguration

Extension Methods

[PipelineComputationExtensions.ToSpeechToTextTask\(BhashiniPipelineTaskConfiguration, string, BhashiniAudioFormat, int\)](#) ,

[PipelineComputationExtensions.ToTextToSpeechTask\(BhashiniPipelineTaskConfiguration, BhashiniVoiceType, string\)](#) ,

[PipelineComputationExtensions.ToTranslateTask\(BhashiniPipelineTaskConfiguration, string, string\)](#).

Fields

Domains

Only for STT tasks. The domain the model is trained for, like "agricultural", "medical", etc.

```
public string[] Domains
```

Field Value

string[]

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> [↗](#)

Language

The languages supported for the task.

```
public BhashiniLanguageData Language
```

Field Value

[BhashiniLanguageData](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

ModelId

The model which will perform the task.

```
public string ModelId
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

ServiceId

The service providing this task configuration.

```
public string ServiceId
```

Field Value

string

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

SupportedVoices

Only for TTS tasks. The voice types the model supports.

```
public BhashiniVoiceType[] SupportedVoices
```

Field Value

[BhashiniVoiceType\[\]](#)

Remarks

<https://bhashini.gitbook.io/bhashini-apis/pipeline-config-call/response-payload> 

Namespace Uralstech.UBhashini.Exceptions

Classes

[BhashiniAudioIOException](#)

Exception thrown during IO-related audio processing failures.

[BhashiniRequestException](#)

Exception thrown due to request-related failures.

Class BhashiniAudioIOException

Namespace: [Uralstech.UBhashini.Exceptions](#)

Exception thrown during IO-related audio processing failures.

```
public class BhashiniAudioIOException : SystemException
```

Inheritance

object ← Exception ← SystemException ← BhashiniAudioIOException

Constructors

BhashiniAudioIOException(string)

```
internal BhashiniAudioIOException(string message)
```

Parameters

message string

BhashiniAudioIOException(string, Exception)

```
internal BhashiniAudioIOException(string message, Exception innerException)
```

Parameters

message string

innerException Exception

BhashiniAudioIOException(string, BhashiniAudioFormat)

```
internal BhashiniAudioIOException(string message, BhashiniAudioFormat format)
```

Parameters

message string

format [BhashiniAudioFormat](#)

Class BhashiniRequestException

Namespace: [Uralstech.UBhashini.Exceptions](#)

Exception thrown due to request-related failures.

```
public class BhashiniRequestException : Exception
```

Inheritance

object ← Exception ← BhashiniRequestException

Constructors

BhashiniRequestException(string)

```
internal BhashiniRequestException(string message)
```

Parameters

message string

BhashiniRequestException(UnityWebRequest)

```
internal BhashiniRequestException(UnityWebRequest request)
```

Parameters

request UnityWebRequest