

Neural4D API Documentation 1.2

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Text to 3D

Generate model from text

This endpoint allows you to generate models with the given prompt and source page. Kindly note that the points consumed when using the API are the same as those when operating directly on the website. This operation consumes 60 points.

Base Request Url

<https://alb.neural4d.com:3000/api/generateModelWithText>

Method

Post

Authorization

Bearer Token

Please use the token we provided to you when generating a new token through Neural4D website.

Request Body

- **prompt** (string, required): The prompt for generating the model.
- **modelCount** (int, optional): The number of models planned for generation. The default value is 4
- **disablePbr** (int, optional): PBR feature toggle. When this parameter is set to 0, the PBR feature is enabled; when set to 1, it is disabled. The default value is 0

Request body example

```
{  "prompt": "people",
  "modelCount": 1,
  "disablePbr": 1
}
```

Request code example

```
curl --location 'https://alb.neural4d.com:3000/api/generateModelWithText' \
--header 'Content-Type: application/json;charset=utf-8' \
--header 'Authorization: YOUR_TOKEN' \
--data '{
  "prompt": "a cute bird",
  "uuids": [
    "f47ac10b-58cc-4372-a567-0e02b2c3d479",
    "c9bf9e57-1685-4c89-bafb-ff5af830be8a",
    "e7b8c5b2-fd0d-4d28-bf8a-a6a1b2c1f9c8",
    "a6edc906-2d9b-4cc3-bb7b-5b5a7e5c9f0a"
  ],
  "disablePbr": 1
}'
```

Response

The response is in JSON format and includes the following fields:

- **type** (string): The type of the response.
- **message** (string): A message related to the generation.
- **uuids** (array of string): Four UUIDs that ultimately match the generated model. You can use uuids to retrieve the models while the generating is completed.

```
{
  "type": "sys",
  "message": "Generating",
  "uuids": [
    "f47ac10b-58cc-4372-a567-0e02b2c3d479",
    "c9bf9e57-1685-4c89-bafb-ff5af830be8a",
    "e7b8c5b2-fd0d-4d28-bf8a-a6a1b2c1f9c8",
    "a6edc906-2d9b-4cc3-bb7b-5b5a7e5c9f0a"
  ]
}
```

Retrieve Model

This endpoint allows you to retrieve a generated model using its UUID.

Base Request Url

`https://alb.neural4d.com:3000/api/retrieveModel`

Method

Post

Authorization

Bearer Token

Please use the token we provided to you when generating a new token through Neural4D website.

Request Body

- **uuid** (string, required): The UUID of the model to be retrieved, you can get it from `/api/generateModelWithText` endpoint ([Generate model from text](#))

Request Code Example

```
curl --location 'https://alb.neural4d.com:3000/api/retrieveModel' \
--header 'content-type: application/json;charset=utf-8' \
--header 'Authorization: Bearer YOUR_TOKEN' \
--data '{
  "uuid": "f47ac10b-58cc-4372-a567-0e02b2c3d479"
}'
```

Response

The response will be a JSON object with the following properties:

- **codeStatus** (int): Indicates the status of the returned result. When this parameter is 0, it means the model has completed generation; when it is 1, it means the model is generating; when it is -1, it means the current token is invalid or expired; when it is -2, it means the queried UUID does not exist; and when it is -3, it means the model generation failed.
- **message** (string): A message related to the retrieval process.
- **modelUrl** (string): The URL of the retrieved model.
- **imageUrl** (string): The URL of the preview image associated with the model.
- **prompts** (string): Any prompts related to the model.
- **createdAt** (string): The timestamp of when the model was created.
- **sourcePage** (string): The source page of the model.

```
{
  "codeStatus": 0,
  "message": "Generate model success",
  "modelUrl": "https://cos.zmkj.com/afsafr24.glb?AWSAccessKeyId=AKIDodI2mK6lXsfasfsfsa",
  "imageUrl": "https://cos.zmkj.com/afsafr24.jpg?AWSAccessKeyId=AKIDodI2mK6lXsfasfsfsa",
  "prompts": "a cute bird",
  "createdAt": "2024-11-07T05:59:40.000Z",
  "sourcePage": "createModel"
}
```

Image to 3D

Matting Image

This endpoint allows you to submit an image for matting. One should mat an image before requests a model generation with that image. Kindly note that the points consumed when using the API are the same as those when operating directly on the website.

Base Request Url

<https://alb.neural4d.com:3000/api/mattingImage>

Method

Post

Authorization

Bearer Token

Please use the token we provided to you when generating a new token through Neural4D website.

Request Body

- **image** (file, required): The image file to be matted, you need upload an image. You can specify the image path as a parameter, following the format in the code example.

- Recommendation
 - Resolution: 256×256px ~ 6048×8064px
 - File Size: <10MB
 - Formats: JPG/JPEG/PNG/WEBP

If you encounter any issues related to CORS, please refer to this article [CORS.solution](#).

Request Code Example

```
curl --location 'https://alb.neural4d.com:3000/api/mattingImage' \
--header 'content-type: multipart/form-data;' \
--header 'Authorization: Bearer <YOUR_TOKEN>' \
--form 'image=@"/path/to/your/image.jpg";type=image/jpeg' \
```

Response

The response is in JSON format and includes the following fields:

- **type** (string): The type of the response.
- **message** (string): A message related to the response.
- **queuePosition** (null): The position of the request in the queue, this feature is under development.
- **uploadedImageUrl** (string): The URL of the image you are going to use for matting.
- **requestId** (number): The ID of the matting request, you can use it to check matting result according to [Get Matted Result](#)

```
{
  "type": "sys",
  "message": "Matting",
  "queuePosition": null,
  "uploadedImageUrl": "https://cos.zmkj.site/be49bf54-73c0-42d7-a5f4-edb6d47e7d86-Scr",
  "requestId": 219880
}
```

Get Matting Result

This endpoint is used to retrieve matted image URLs based on the provided request ID.

Base Request Url

https://alb.neural4d.com:3000/api/getMattedResult

Method

Post

Authorization

Bearer Token

Please use the token we provided to you when generating a new token through Neural4D website.

Request Body

- **requestId** (number, required): You can get it from the response of the `/api/mattingImage` endpoint. see [Matting Image](#) for more information.

Request code example

```
curl --location 'https://alb.neural4d.com:3000/api/getMattedResult' \
--header 'Content-Type: application/json;charset=utf-8' \
--header 'Authorization: Bearer YOUR_TOKEN' \
--data '{
    "requestId":456321
}'
```

Response

The response is a JSON object with the following properties:

- **message** (string): A message about the matting status.
- **mattedImageUrls** (array of strings): An array of URLs for the matted images. After matting, four different matted images are returned, and you can select one of them for model generation in the next step.
- **fileKeys** (array of strings): An array of fileKeys with a length of 4. Each fileKey represents the index of an image after matting. You can use one of the fileKeys to call the `/api/generateModelWithImage` endpoint ([GenerateModelWithImage](#)) to perform generation. Each fileKey corresponds a URL in `mattedImageUrls` respectively.

```
{  
  "message": "Image matting completed",  
  "mattedImageUrls": [  
    "https://cos.zmkj.com/bc2444de58374aaaaaaaaScreenshot-20240519-at-173715png_1e687a92-af38-4b85-b667-fd8f1ad8f1ad.png",  
    "https://cos.zmkj.com/bc2444de58374aaaaaaaaScreenshot-20240519-at-173715png_66c88b68-6699-40f0-ad8f1ad8f1ad.png",  
    "https://cos.zmkj.com/bc2444de58374aaaaaaaaScreenshot-20240519-at-173715png_3bfe30e7-d1ac-47e2-9c2c-fd8f1ad8f1ad.png",  
    "https://cos.zmkj.com/bc2444de58374aaaaaaaaScreenshot-20240519-at-173715png_db818ba2-4c4a-41e6-88f1-ad8f1ad8f1ad.png"  
  ],  
  "fileKeys": [  
    "bc2444de58374aaaaaaaaScreenshot-20240519-at-173715png_1e687a92-af38-4b85-b667-fd8f1ad8f1ad.png",  
    "bc2444de58374aaaaaaaaScreenshot-20240519-at-173715png_66c88b68-6699-40f0-ad8f1ad8f1ad.png",  
    "bc2444de58374aaaaaaaaScreenshot-20240519-at-173715png_3bfe30e7-d1ac-47e2-9c2c-fd8f1ad8f1ad.png",  
    "bc2444de58374aaaaaaaaScreenshot-20240519-at-173715png_db818ba2-4c4a-41e6-88f1-ad8f1ad8f1ad.png"  
  ]  
}
```

Generate Model with Image

This endpoint allows you to generate models from a matted image. You can use the fileKey you received from the Matting result to generate. One should mat an image before requests a model generation. Kindly note that the points consumed when using the API are the same as those when operating directly on the website. This operation consumes 80 points.

Base request url

<https://alb.neural4d.com:3000/api/generateModelWithImage>

Method

Post

Authorization

Bearer Token

Please use the token we provided to you when generating a new token through Neural4D website.

Request Body

- **fileKey** (string, required): One of the fileKey you got from /api/getMattedResult endpoint([Get matted result](#)).
- **modelCount** (int, optional): The number of models planned for generation. The default value is 4
- **disablePbr** (int, optional): PBR feature toggle. When this parameter is set to 0, the PBR feature is enabled; when set to 1, it is disabled. The default value is 0

Request Code Example

```
curl --location 'https://alb.neural4d.com:3000/api/generateModelWithImage' \
--header 'content-type: application/json;charset=utf-8;' \
--header 'Authorization: Bearer YOUR_TOKEN' \
--data '{
  "fileKey": "bc2444de58374aaaaaaaaScreenshot-20240519-at-173715png_
    1e687a92-af38-4b85-b667-bbbbbbbb.png",
  "modelCount": 4
  "disablePbr": 1
}'
```

Response

The response is a JSON object with the following properties:

- **type**(string): The source of this response.
- **message**(string): The status of the generation
- **uuids**(array of strings): An array containing the indexes of the four generated models. You can use any of them to retrieve the model and get the result of the image-to-3D conversion.

```
{
  "type": "sys",
  "message": "Generating",
  "uuids": [
    "d8eaa329-8d03-4bcd-916c-d89dbdd0a5ea",
    "5f281687-0ffa-4231-b6af-e75e9bed0bf6",
    "c2fcc808-1236-44d3-be9c-d10ba3d90740",
    "e91c0d1c-385b-46e6-8f10-72f3172cc6ca"
  ]
}
```


Generate chibi-style Model with Image

This endpoint allows you to generate a cute model from an image and prompt. Kindly note that the points consumed when using the API are the same as those when operating directly on the website. This operation consumes 30 points. Before using this API, please contact our business team to set up the prompt tag first, otherwise it will not work properly.

Base request url

<https://alb.neural4d.com:3000/api/createCuteModelsFromImages>

Method

Post

Authorization

Bearer Token

Please use the token we provided to you when generating a new token through Neural4D website.

Request Body

- **images** (file, required): This parameter accepts user-uploaded images for generating chibi-style 3D character models. You can choose one of JPG/JPEG/PNG format.
- **styleType** (string, required): It indicate that user-saved prompt tag.

Request Code Example

```
curl --location 'https://alb.neural4d.com:3000/api/createCuteModelsFromImages' \
--header 'Content-Type: multipart/form-data' \
--header 'Authorization: Bearer YOUR_TOKEN' \
--form 'images=@"/your/image/file/path"' \
--form 'styleType="Pixel-Style"'
```

Response

The response is a JSON object with the following main properties:

- **uuids** (array): The unique model identifier. Use this UUID later with the /retrieveModel endpoint to query your generated model.

```
{
  "success": true,
  "totalFiles": 1,
  "successCount": 1,
  "failureCount": 0,
  "results": [
    {
      "uuids": [
        "31f15c88-48ae"
      ],
      "success": true,
      "message": "Task created and model generation started, please retrieve model after a moment"
    }
  ],
  "failures": [],
  "message": "Processed 1 files: 1 succeeded, 0 failed"
}
```

Retrieve Model

This endpoint allows you to retrieve a generated model using its UUID.

Base Request Url

<https://alb.neural4d.com:3000/api/retrieveModel>

Method

Post

Authorization

Bearer Token

Please use the token we provided to you when generating a new token through Neural4D website.

Request Body

- **uuid** (string, required): The UUID of the model to be retrieved, you can get it from [/api/generateModelWithImage](#) endpoint ([GenerateModelWithImage](#))

Request Code Example

```
curl --location 'https://alb.neural4d.com:3000/api/retrieveModel' \
--header 'content-type: application/json;charset=utf-8' \
--header 'Authorization: Bearer YOUR_TOKEN' \
--data '{
  "uuid": "d8eaa329-8d03-4bcd-916c-d89dbdd0a5ea"
}'
```

Response

The response will be a JSON object with the following properties:

- **codeStatus** (int): Indicates the status of the returned result. When this parameter is 0, it means the model has completed generation; when it is 1, it means the model is generating; when it is -1, it means the current token is invalid or expired; when it is -2, it means the queried UUID does not exist; and when it is -3, it means the model generation failed.
- **message** (string): A message related to the retrieval process.
- **modelUrl** (string): The URL of the retrieved model.
- **imageUrl** (string): The URL of the preview image associated with the model.
- **prompts** (string): Any prompts related to the model.
- **createdAt** (string): The timestamp of when the model was created.
- **sourcePage** (string): The source page of the model.

```
{
  "codeStatus": 0,
  "message": "Generate model success",
  "modelUrl": "https://cos.zmkj.com/5a0d53e3-6b44-4a3b-b769-aaaaa_0.glb?AWSAccessKeyId",
  "imageUrl": "https://cos.zmkj.com/1908fc87-82c1-47fc-9fc1-aaaaa_0.jpg?AWSAccessKeyId",
  "prompts": "",
  "createdAt": "2024-11-07T06:07:05.000Z",
  "sourcePage": "direct3DA11"
}
```

Format Conversion and Download Model

This endpoint allows you to convert a model to the desired format and download it using its UUID and target format. This operation consumes 10 points.

Base Request Url

<https://alb.neural4d.com:3000/api/convertToFormat>

Method

Post

Authorization

Bearer Token

Please use the token we provided to you when generating a new token through Neural4D website.

Request Body

- **uuid** (string, required): The uuid of the model you want to download.
- **modelType** (string, optional): The format of downloaded model, you can choose one of the following: 'fbx', 'glb', 'obj', 'stl', 'blend' and 'usdz'. The default value is 'glb'
- **modelSize** (int, optional): Model size in millimeters, the value should be greater than 1, default value is 2

Suggestion: You can first use the UUID to request the /retrieveModel endpoint to check if the model has been generated successfully, and then use the /convertToFormat endpoint for format conversion and model download

Request Code Example

```
curl --location 'https://alb.neural4d.com:3000/api/convertToFormat' \
--header 'content-type: application/json;charset=utf-8' \
--header 'Authorization: Bearer YOUR_TOKEN' \
--data '{
  "uuid": "2dee04d4-f6e5-4fdf-b626-0f814e24db84",
  "modelType": "fbx",
  "modelSize": 2
}'
```

Response

The response will be a JSON object with the following properties:

- **message** (string): A message related to the downloading process. If the message displays 'Cannot find the type, converting.', please try again later.
- **modelUrl** (string): The URL of the downloaded model.
- **statusType** (int): When this parameter is 0, it means the format conversion is complete, and you can download the model using the returned URL. When this parameter is 1, it indicates that the model is currently being converted into the specified format. Please wait a few seconds and try again. When this parameter is -1, it means the request parameters are incorrect or the format conversion has failed. The default format is glb

```
{
  "statusType": 1,
  "modelSize": 2,
  "message": "The specified model format does not exist, converting now..."
}
```

```
{
  "statusType": 0,
  "modelUrl": "https://s3.neural4d.com/fbx_54078587-7fdd-49c5-9fe6-317d22f27098.zip?si",
  "scaleNumber": 4,
  "message": "Format conversion has been completed and is ready for download."
}
```

```
{
  "statusType": -1,
  "message": "Model not found for this UUID (0efc2b3-57e1-4813-90c6-419de96e785e).  
Please check if the UUID is correct."
}
```

Portrait image detection

This endpoint allows you to detect the presence of human subjects in an image.

Base Request Url

<https://alb.neural4d.com:3000/api/checkHumanImage>

Method

Post

Authorization

Bearer Token

Please use the token we provided to you when generating a new token through Neural4D website.

Request Body

- **image** (file, required): The image file of the detected portrait, you can choose one of JPG/JPEG/PNG.

Request Code Example

```
curl --location 'https://alb.neural4d.com:3000/api/checkHumanImage' \
--header 'Content-Type: multipart/form-data;' \
--header 'Authorization: Bearer YOUR_TOKEN' \
--form 'image=@"/the/path/of/your/image.jpg";type=image/jpeg'
```

Response

The response will be a JSON object with the following properties:

- **statusCode** (int): This parameter indicates whether the detection result is valid.
 - When the value is `0`, it means the detection result is **valid**.
 - When the value is `-1`, it means the detection result is **invalid** (please refer to the `message` field for details).
- **result** (bool): This parameter indicates the portrait detection result from the image:
 - Returns `true` when a human portrait is detected in the image
 - Returns `false` when no human portrait is detected in the image
- **message** (string): Description of the detection results

```
{
  "statusCode": 0,
  "result": true,
  "message": "success"
}
```

```
{
  "statusCode": -1,
  "result": false,
  "message": "Rate limit reached for image style detection, returning false"
}
```

Query remaining balance

This endpoint allows you to query your remaining balance available for subsequent operations.

Base Request Url

<https://alb.neural4d.com:3000/api/queryPointsInfo>

Method

Post

Authorization

Bearer Token

Please use the token we provided to you when generating a new token through Neural4D website.

Request Code Example

```
curl --location --request POST 'https://alb.neural4d.com:3000/api/queryPointsInfo'
--header 'Authorization: ....'
```

Response

The response will be a JSON object with the following properties:

- **statusType** (int): This parameter indicates whether the query result is valid.
 - When the value is `0`, it means the query result is ****valid****.
 - When the value is `-1`, it means the query result is ****invalid**** (please refer to the `message` field for details).
- **data** (json): This parameter indicates the detailed remaining balance information
- **message** (string): Description of the query results

```
{
  "statusType": 0,
  "data": {
    "total_points": 54335,
    "monthly_bonus_points": 0,
    "permanent_points": 54335,
    "year_points": 0,
    "expiration_day": null
  },
  "message": "Get the points info successfully"
}
```

Query job progress

This endpoint allows you to query the progress of the model generation

Base Request Url

<https://alb.neural4d.com:3000/api/queryJobProgress>

Method

Post

Authorization

Bearer Token

Please use the token we provided to you when generating a new token through Neural4D website.

Request Body

- **uuid** (string, required): The UUID of the model for which you need to query the generation progress

Request Code Example

```
curl --location 'https://alb.neural4d.com:3000/api/queryJobProgress' \
--header 'Content-Type: application/json' \
--header 'Authorization: ..... ' \
--data '{
  "uuid": "c7b77026-88f5-417f-a7c8-648a9448"
}'
```

Response

The response will be a JSON object with the following properties:

- **statusType** (int): This parameter indicates whether the query result is valid.
 - When the value is `0`, it means the query result is ****valid****.
 - When the value is `-1`, it means the query result is ****valid****, but the job doesn't exist, please confirm whether the UUID is correct.
 - When the value is `-2`, it means the query result is ****invalid**** (please refer to the `message` field for details).
- **progress** (string): This parameter indicates the progress of the model generation.
- **message** (string): Description of the query results

```
{
  "statusType": 0,
  "message": "Get job progress successfully",
  "progress": "100%"
}
```