Maraton Server

HTTP Protocol

# Introduction

Introduction shows you how to construct a message

## Message Format

All messages are JSON.

The framework of a message is the following structure

{

command: 1234,

status: 0,

data: {}

}

Command is the command number of the message, it shows the function or purpose of the message. It can be found in the chapter name of a message in next few chapters. For example, ‘2. List Executor (10200)’, 10200 is the command number.

Status is the emergency level of the message; in most cases it should be set to 0

Data is the body of the message.

The server and the client shares the same message formatting and handling progress.

## Request

Request chapter shows what server needs for the message.

## Response

Response chapter shows how the message bodies are constructed and its properties

## Example

A well message is constructed like:

{

“command”: 10200,

“status”: 0,

“data”: {

“id”: “ID”,

“status”: 0,

mem : 1

}

}

# List Executor (10200)

List all the executors and their basic properties.

## Method

POST

## Request

None

## Response

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| id | id of the executor | string | required |
| status | status of the executor | string | required |
| mem | available memory size by MB | long | required |
| disk | available disk size by MB | long | required |
| ability | computing ability | long | required |
| task\_id | current running task id. none means idle | string | required |

# /executor/info

Query the basic data of an executor.

Input an object.

Output an object

## Method

POST

## Request

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Value | Type |
| id | executor id | GUID | string |

## Response

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| id | id of the executor | string | required |
| status | status of the executor | string | required |
| mem | available memory size by MB | long | required |
| disk | available disk size by MB | long | required |
| ability | computing ability | long | required |
| host | host pc name | string | required |
| taskid | current running task id. none means idle | string | required |

# /executor/stop

Stop an executing job

Input an object

Output an object

## Method

POST

## Request

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| id | executor id | GUID | required |

## Response

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| id | executor id | string | required |
| result | result | bool | required |
| message | fail message | string | required |

# Task Start (10000)

launch a new task

Input an object

Output an object

## Method

POST

## Request

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| id | task id | GUID | required |
| name | name | string | optional |
| fastq | fastq urls | array<string> | required |
| executor | assigned executor id | array<GUID> | required |
| aligner | assigned aligner | string | required |
| args | aligner parameters | array<string> | required |

## Response

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| id | task id | GUID | required |
| result | result | int  0: run  1: queue  -1: failed | required |
| message | fail message | string | required |

# /task/list

List all task

Input none

Output an array

## Method

POST

## Request

none

## Response

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| id | task id | GUID | required |
| name | task name | string | required |
| task\_status | task status   * finish * stop * running | string | required |
| task\_progress | task progress | int | required |
| fastq | fastq url list | array<string> | required |
| executor | executor GUID list | array<GUID> | required |
| aligner | assigned aligner | string | required |
| args | aligner parameters | array<string> | required |

# /task/info

launch a new task

Input an object

Output an object

## Method

POST

## Request

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| id | task id | GUID | required |

## Response

|  |  |  |  |
| --- | --- | --- | --- |
| id | task id | GUID | required |
| name | task name | string | required |
| task\_status | task status   * finish * stop * running | string | required |
| task\_progress | task progress  0-100 | int | required |
| fastq | fastq url list | array<string> | required |
| executor | executor GUID list | array<GUID> | required |
| aligner | assigned aligner | string | required |
| args | aligner parameters | array<string> | required |

# /task/stop

stop a task

## Method

POST

## Request

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| id | task id | GUID | required |

## Response

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| id | task id | GUID | required |
| result | result | bool | required |
| message | fail message | string | required |

# Command (10100)

send a command to executor to execute

## Method

POST

## Request

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| cmd | command content | string | required |
| uris | required resources | array<string> | required |
| runAsUser | execution rights, default is root | string | optional |

## Response

|  |  |  |  |
| --- | --- | --- | --- |
| Variable Name | Description | Type | Optional |
| result | result | int  0: success  otherwise: failed | required |
| message | fail message | string | required |