

The submission flow through the api is designed to be very similar to the UX flow. It consists of 2 main phases - insample and outsample flow.

- 1a) Run simulation
- 1b) Check result
- 2a) Submit simulation (if eligible)
- 2b) Check portfolio

domain - <https://alphaverse.alpha-grep.com>

Setup

Screenshot added at end of the file

- 1) Login to Alphaverse through a browser
- 2) Open the network tab and make any request (e.g., run a simulation)
- 3) Copy the 'Authorization' value from the above request's headers. It should start with 'Bearer'
- 4) Add this key value pair to the header of all subsequent api calls.

Note - this token is valid for 24 hours. You will need a new token after that. Just follow the same steps.

Steps

1a) Run simulation

endpoint - **api/v1/insample** (POST)

This endpoint is designed to initiate a simulation.

Sample Payload

```
{
  "code": "alpha = open - close",
  "settings": {
    "truncation": 0.1,
    "pasteurize": true,
    "dataset": "CHINA500",
```

```

        "region": "china",
        "decay": 6,
        "neutral": "market"
    },
    "competition": "AG_EXAMPLE"
}

```

All fields are required

Field descriptions:

code (string) - Must be a valid alpha.

settings.truncation (int) - Truncation value

settings.pasteurize (bool) - Should pasteurize or not

settings.decay (int) - Decay value

settings.region (string) - Should be either ['us' or 'china']

settings.dataset (string) - Value depends on region. 'us' datasets ['US1000', 'US2000', 'US3000'], 'china' datasets - ['CHINA500', 'CHINA1000', 'CHINA2000']

settings.neutral (int) - Value depends on region. 'us' neutrals are ['none', 'market', 'sub-sector', 'industry', 'sub-industry', 'sector'], 'china neutrals are ['none', 'market', 'sub-sector', 'industry', 'sector']

competition: Competition name to simulate this in

Response code should be **202**

Sample Response

```

{
    taskId: "738a72cf-223e-4dbc-9db6-aa75 a11d816b"
}

```

taskId (string) - **Save this id**. It is a unique uuid to identify your simulation. You will need it to check results and submit the alpha.

1b) Check results

endpoint - **api/v1/result?task_id={taskId}** (GET)

This endpoint is designed retrieve simulation results

Provide the **taskId** in the previous step to see the results of a simulation. Results will only be available after simulation is complete, which takes around a minute.

Response code should be **200**

Look out for **is_eligible_for_submission** property in the result. Only if it's **true**, should you submit your alpha. Note - Do not submit ineligible alphas. They won't be considered for scoring, but will count towards your API quota usage.

is_eligible_for_submission is **True** if **robustness checks** and **correlation check** pass.

2a) Submit simulation

endpoint - **/api/v1/outsample** (POST)

This endpoint is designed to initiate a submission.

Sample Payload

```
{
  "taskId": "db01f7cb-c9c1-4942-bf66-70d85b417f02"
}
```

The payload should only have **taskId**.

Response code should be **202**

Sample Response

```
{
  taskId: "db01f7cb-c9c1-4942-bf66-70d85b417f02",
  osTaskId: "90d5dd66-03bd-4e4e-a2e4-c55b0cb3c6d8"
}
```

2b) Check OS results

Individual OS results won't be available anymore. You will be able to view your overall portfolio, which updates daily. We recommend viewing this in the UI.

Endpoint - **tasks/portfolio?competition={competition}®ion={region}** (GET)

Example - tasks/portfolio?competition=AG_EXAMPLE®ion=us

Appendix

Where to find the authorization token

The screenshot displays the AlphaVerse web application interface on the left and its network inspector on the right.

AlphaVerse Interface:

- Header:** AlphaVerse logo and navigation links: Simulate, Alphas, Competitions, Resources, Api, Get, Doc, Started.
- Code Editor:** Shows a code snippet:

```
1 x1 = cs_rank(ts_inst_tvr(close, 5))
2 x2 = cs_zscore(ts_inst_tvr(close, 5))
3 alpha = x1/x2
```
- Settings:** Dataset: US1000, Decay: 4.
- Test Results:**
 - Sharpe of -0.09 is below the cut-off of 1 (Red X)
 - BPS of -0.16 is below the cut-off of 3 (Red X)
 - Turnover(%) of 71.64 is outside the cut-off of 1 and 70 (Red X)
 - Weight Concentration check passed (Green Check)
 - Global correlation is only checked if other checks pass (Greyed out)
- Alpha Performance Table:**

Year	BPS	DrawDown
2011	1.23	1.47
2012	-0.70	3.13

Network Inspector:

- Request Headers (900 B):**
 - Accept: application/json, text/plain, */*
 - Accept-Encoding: gzip, deflate, br
 - Accept-Language: en-US,en;q=0.9
 - Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXLTc0NDU0Njc4OGwianRpIjoiOTI...
 - Connection: keep-alive
 - Cookie: g_state=("")
 - Host: alphaverse.alpha-grep.com
 - Referer: https://alphaverse.alpha-grep.com/simulate
 - requestTime: 1714561588172
 - Sec-Fetch-Dest: empty
 - Sec-Fetch-Mode: cors
 - Sec-Fetch-Site: same-origin
 - TE: trailers
 - User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.15; rv:124.0) Gecko/20100101 Firefox/124.0
- Response Headers (363 B):**
 - access-control-allow-credentials: true
 - access-control-allow-origin: *
 - alt-svc: h3=":443"; ma=2592000, h3-29=":443"; ma=2592000
 - content-length: 5
 - content-type: application/json
 - date: Wed, 01 May 2024 11:06:28 GMT
 - server: Google Frontend
 - via: 1.1 google, 1.1 google
 - x-cloud-trace-context: 74f8b78085d063a8a93965fad6563ad5
 - X-Firefox-Spdy: h2

Sample python code for Insample simulation

```
import requests
```

```
# Define the API endpoint
```

```
url = 'https://alphaverse.alpha-grep.com/api/v1/insample'
```

```
token = # add me. Should start with "Bearer ...."
```

```
payload = {
    "code": "alpha = open - close",
    "settings": {
        "truncation": 0.1,
```

```

        "pasteurize": True,
        "dataset": "US1000",
        "region": "us",
        "decay": 6,
        "neutral": "market",
    },
    "competition": "APL_2024",
}

```

```

headers = {'Authorization': token}
# Send a GET request to the API endpoint
response = requests.post(url, headers=headers, json=payload, verify=False)

```

```

# Check if the request was successful (status code 200)
if response.status_code == 202:
    # Extract and print the response data
    data = response.json()
    print(data)
else:
    # Print an error message if the request failed
    print('Error:', response.status_code)

```

Sample python code for Outsample simulation

```

import requests

```

```

# Define the API endpoint
url = 'https://alphaverse.alpha-grep.com/api/v1/outsample'
token = #Add me "Bearer ..."

```

```

payload = {"taskId": "123"}

```

```

headers = {'Authorization': token}
# Send a GET request to the API endpoint
response = requests.post(url, headers=headers, json=payload, verify=False)
data = response.json()

```

```

# Check if the request was successful (status code 200)
if response.status_code == 202:
    # Extract and print the response data
    data = response.json()
    print(data)
else:

```

```
# Print an error message if the request failed
print(data)
print('Error:', response.status_code)
```