# Rayvision Render API Protocal Description

## Revision History

| Version | Date | Edited By | Description |
|---------|------|-----------|-------------|
| V3.0 | 2-Nov-2018 | Yue Li | Error code description added; And status code added to the task list query |
| V2.0 | 11-Oct-2018 | Yue Li | |
| V1.0 | 12-Sep-2018 | Yue Li | |

# Table of Content

# General parameter guide

## HTTP request header

| Request header | Instruction | Memo |
| --- | --- | --- |
| accessId | ID authorization | Provided by render platform |
| channel | Channel reminer | Fixed value：4 |
| platform | Platform identification | |
| UTCTimestamp | Timestamp | UTC Time stamp（seconds） |
| nonce | Random number | Replay attacks prevention |
| signature | Digital signature（Not processed by signature algorithm） | Generated according to the signature rule, for Details: Signature Generation Rule |
| version | Version info | 1.0.0 |

## Request parameter

Refer the separate request parameter for details

Return data structure

| Parameter | Data type | Description | Memo |
|---|---|---|---|
| version | String | Version info | Fixed value：1.0.0 |
| result | Boolean | Indicates the request result. | |
| message | String | A message indicates the request result. | |
| code | Integer | request return code | For reference: error code description |
| serverTime | Long | Server timestamp | UTC +8 |
| data | T | Return data details | Check interface guide for details: Return data |

# Signature generation rules

Apply for security credentials：

accessId is used to identify the API caller identity, and the accessKey is the key that used to encrypt the signature string, and validate the signature string on the server-side. User must keep the security credentials strictly to prevent disclosure.

Generate signature string：

With the security credentials accessId and accessKey, you can generate a signature string.

**The signature range includes custom http request headers and method request bodies**

Assume the accessId and accessKey of the user are as below：

accessId: AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE

accessKey: Gu5t9xGARNpq86cd98joQYCN3EXAMPLE

**Signature method：**

**1. Sort the parameters**

**First sort all custom http request headers and request parameters in ascending order by lexicographical order (ASCII) of the parameter name**

```
Header:
{
    "accessId": AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE,
    "channel": 7,
    "platform": 1,
    "UTCTimestamp": 1535957371,
    "nonce": 11886,
    "version": "1.0.0"
}


Body:
{
    "zone":2
}


After ascending order sorting:
{
    "UTCTimestamp":1535957371,
    "accessId":AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE,
    "channel":7,
    "nonce":11886,
    "platform":1,
    "version":1.0.0,
    "zone":2
}
```

For the request structure of complex objects, supplementary description of parameter formatting is needed to be added, the subscript is needed to be added on the array, and parent-child object attributes are connected using **"."**

For instance：
```
# There may be parameter passing of complex objects in the later slabele，for instance
{
    "taksId":2
    "renderEnvs":[{
        envId:1
        pluginIds:[2,3,4]
    },{
        envId:3
```

```
        pluginIds:[7,8,10]


    }]
}


# The formatting result is as follows
{
    "taksId":2
    "renderEnvs0.envId":1
    "renderEnvs0.pluginIds0":2
    "renderEnvs0.pluginIds1":3
    "renderEnvs0.pluginIds2":4
    "renderEnvs1.envId":3
    "renderEnvs1.pluginIds0":7
    "renderEnvs1.pluginIds1":8
    "renderEnvs1.pluginIds2":10
}
```

**2.** Jointly request the character string

The request header sorted in the previous step will be formatted into the form of "head name" = "head value". For example, for channel, the header name is "channel" and the header value is "7", so after the formatting "channel=7" will be displayed

# Jointly request the character string


UTCTimestamp=1535957371&accessId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE&channel=7&nonce=11886&platform=1&version=1.0.0&zone=2

**3. Combine the signatures of the original character string**

This step generates a signature of character string that consists of the following parameters:

1) Request method: Only support POST method 7 full caps

2) Request host: AKA the module request domain name，for example：task.renderbus.com。

3) Request address: AKA the Interface path in the interface description, for example：
*/api/render/common/queryPlatforms*

**4) Request character string: the request string generated in the previous step**


**Structure：**

[Request method]: Request domain name & request character string

**Combine the signatures of the original character string ~ example:**

 [POST]task.renderbus.com:/api/render/common/queryPlatforms&UTCTimestamp=1535957371&accessId=
AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE&channel=7&nonce=11886&platform=1&version=1.0.0&zo
ne=2

### 4.  Generate signature string

First, use the HmacSHA256 algorithm to sign the **signatures of the original character string** that obtained
in the previous step, and then encode the generated signature string using Base64 to obtain the final
signature string.

```
String accessKey =  "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE";
String srcStr
=  "[POST]task.renderbus.com:/api/render/common/queryPlatforms&UTCTimestamp=15359573
71&accessId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE&channel=7&nonce=11886&platform=1&ve
rsion=1.0.0&zone=2";

Mac mac = Mac.getInstance("HmacSHA256");

SecretKeySpec secretKeySpec =
new  SecretKeySpec(accessKey.getBytes("UTF-8"), mac.getAlgorithm());

mac.init(secretKeySpec);
byte[] hash = mac.doFinal(srcStr.getBytes("UTF-8"));
String signStr = DatatypeConverter.printBase64Binary(hash);

return  signStr;
```

The final signature string：

6tvuz8bgDCz5vtS3amuMWVbOqzhaeWaOhNcWMqx9zcg=

### 5. Set up the signature

Set the generated signature string to the **http request header**
signature=6tvuz8bgDCz5vtS3amuMWVbOqzhaeWaOhNcWMqx9zcg=

# Error code description

| Error code= | Status code | Info | description |
| --- | --- | --- | --- |
| SUCCESS | 200 | success | Indicate the success result |
| FAIL | 100 | fail | Indicate the fail result |
| NEED_REDIRECT | 301 | need_redirect | Need to redirect to other addresses |
| FORBIDDEN | 403 | forbidden | No authorization to access |
| RESOURCE_NOT_FOUND | 404 | resource_not_found | Sources none existing |
| DO_NOT_HAVE_ANY_MORE_RECORD | 700 | do_not_have_any_more_record | No more records contained |
| INTERNAL_ERROR | 500 | internal_error | Server processing failure |
| PARAMETER_INVALID | 600 | parameter_invalid | Invalid parameter |
| PARAMETER_CANT_BE_EMPTY | 601 | parameter_cant_be_empty | Required parameter missing |
| NEED_USER_LOGIN | 602 | need_user_login | Indicate the user need to log in |
| ILLEGAL_PROTOCOL | 603 | illegal_protocol | Illegal request |
| VALIDATE_CODE_ERROR | 604 | validate_code_error | Indicate the mobile phone verification code error |
| VINSUFFICIENT_PERMISSIONS | 605 | vinsufficient_permissions | Insufficient permissions |

| Error code= | Status code | Info | description |
| --- | --- | --- | --- |
| VALIDATE_COMMOM_CODE_ERROR | 606 | validate_commom_code_error | Verification code error |
| VALIDATE_SEND_CODE_ERROR | 607 | validate_send_code_error | Indicates the verification code was failed to send |
| USER_AREA_ERROR | 608 | user_area_error | Customer's domestic and foreign regions do not match |
| SIGNATURE_EXPIRED | 610 | signature_expired | Signature expired |
| SIGNATURE_INVALID | 611 | signature_invalid | Invalid signature |

# Interface description

## Obtain the platform list

**Interface path:** */api/render/common/queryPlatforms*

**Request parameters:**

| Parameters | Type | Description | Memo |
|---|---|---|---|
| zone | Integer | Domestic and foreign regions are Mandatary field | Domestic: 1, Foreign: 2 |

**Return parameters:**

| Parameters | Type | Description | Memo |
|---|---|---|---|
| platform | Integer | Platform number | |
| name | String | Platform number description | |

**Example of requesting:**

```
{
    "zone":2
}
```

**Example of returning:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data":  [
        {
            "platform":  2,
            "name":  "query_platform_w2"
        }
```

```
    ],
    "serverTime":  1535949047370
}
```

# Obtain the user information

**Interface path:** */api/render/user/queryUserProfile*

**Request parameter: default**

**Return parameter: for details please refer to: the example of return**

| Parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| | | | |

**The example of requesting: default**

**The example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data": {
        "userId":  10001136,
        "userName":  "rayvision",
        "platform":  2,
        "phone":  "173333333333",
        "email":  "",
        "company":  "",
        "name":  "",
        "job":  "",
        "communicationNumber":  "",
        "softType":  2000,
        "softStatus":  1,
        "businessType":  1,
        "status":  1,
        "infoStatus":  0,
        "accountType":  1,
        "userType":  1,
        "mainUserId":  0,
```

```
        "level":  49,
        "pictureLever":  null,
        "zone":  1,
        "rmbbalance":  0,
        "usdbalance":  0,
        "rmbCumulative":  0,
        "usdCumulative":  0,
        "credit":  0,
        "coupon":  49.93,
        "description":  "",
        "country":  "China",
        "city":  "Zhongshan City, Guangdong Province",
        "address":  "",
        "cpuPrice":  0.67,
        "gpuPrice":  20,
        "shareMainCapital":  0,
        "subDeleteTask":  0,
        "useMainBalance":  0,
        "hideBalance":  0,
        "hideJobCharge":  0,
        "useLevelDirectory":  1,
        "downloadDisable":  0,
        "displaySubaccount":  1,
        "subaccountLimits":  5,
        "houdiniFlag":  0,
        "c4dFlag":  0,
        "blenderFlag":  0,
        "keyshotFlag":  0,
        "studentEndTime":  null
    },
    "serverTime":  1535953580730
}
```

# Obtain user settings

**Interface path:** */api/render/user/queryUserSetting*

**Request parameter: default**

**Return parameter:**

| Parameter | Type | Description | Memo |
|-----------|------|-------------|------|

| Parameter | Type | Description | Memo |
|---|---|---|---|
| infoStatus | Integer | | |
| accountType | Integer | | |
| shareMainCapital | | | |
| subDeleteTask | | | |
| useMainBalance | | | |
| singleNodeRenderFrames | String | Multiple frames rendered on one machine | |
| maxIgnoreMapFlag | String | Can choose to ignore the max map error or not | 0 Do not ignore, 1 Ignore |
| autoCommit | String | Can choose start scene parameter rendering | 1 Do not start, 2 Start |
| separateAccountFlag | Integer | Separate the primary and secondary account settings | |
| mifileSwitchFlag | Integer | Indicate the switch option of mi Document analysis risk | |
| assfileSwitchFlag | Integer | Do not analyze the ass file switch identifier | |
| manuallyStartAnalysisFlag | Integer | Manually turn on the analysis switch | |
| downloadDisable | Integer | Choose to disable downloading or not | 1 Disable, 0 Do not disable |
| taskOverTime | Integer | Timeout - hour | |

**Example of request: default**

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data": {
        "infoStatus":  null,
        "accountType":  null,
        "shareMainCapital":  0,
        "subDeleteTask":  0,
        "useMainBalance":  0,
        "singleNodeRenderFrames":  "1",
        "maxIgnoreMapFlag":  "1",
        "autoCommit":  "2",
        "separateAccountFlag":  0,
        "mifileSwitchFlag":  0,
        "assfileSwitchFlag":  0,
        "manuallyStartAnalysisFlag":  0,
        "downloadDisable":  0,
        "taskOverTime":  12
    },
    "serverTime":  1535954828406
}
```

## Update user settings

**Interface path:** *api/render/user/updateUserSetting*

**Request parameter:**

| Parameter | Type | Description | Memo |
|---|---|---|---|
| taskOverTime | Integer | Set up of Task timeout situation | |

**Return parameter: default**

**Example of return:**

```
{
    "taskOverTime":  13
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data":  null,
    "serverTime":  1535957894211
}
```

# Obtain user transfer BID

**Interface path**: */api/render/task/getTransferBid*

**Request parameter: default**

**Return parameter:**

| Parameter | Type | Description | Memo |
|---|---|---|---|
| config_bid | String | Configuration file transfer ID | |
| output_bid | String | Download the transfer file ID | |
| input_bid | String | Asset upload transfer ID | |

**Example of request: default**

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data": {
        "config_bid":  "30201",
        "output_bid":  "20201",
        "input_bid":  "10201"
    },
    "serverTime":  1535957964631
```

}

# Create task ID

**Interface path:** */api/render/task/createTask*

**Request parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| count | Integer | The numbers of created task ID | |
| outUserId | Long | Optional, External user ID | Used to distinguish third-party accessed users |

**Return parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| aliasTaskIdList | List\<String\> | Task ID alias | |
| taskIdList | List\<Integer\> | Task ID | |

**Example of request:**

```
{
    "count":1,
    "outUserId":  100001
}
```

**Example of return:**

```
{
  "version":  "1.0.0",
  "result":  true,
  "message": "success",
  "code":  200,
  "data": {
      "aliasTaskIdList": [
          "2W19097"
```

```
        ],
        "taskIdList": [
            19097
        ]
    },
    "serverTime": 1535959487092
}
```

# Submit task

**Interface path:** */api/render/task/submitTask*

**Request parameter:**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| taskId | Integer | Submit task ID | |

**Return parameter: default**

**Example of request:**

```
{
    "taskId": 19111
}
```

**Example of return:**

```
{
    "version": "1.0.0",
    "result": true,
    "message": "success",
    "code": 200,
    "data": null,
    "serverTime": 1535957894211
}
```

# Obtain analysis error code

**Interface path:** *api/render/common/queryErrorDetail*

**Request parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| code | String | Mandatary, error code | |
| language | String | Optional, language | 0：Chinese（default）1：English |

**Return parameter: List<CodeInfo>**

| parameter | Type | Description | Memo |
|---|---|---|---|
| id | | | |
| code | Integer | error code | |
| type | Integer | Type | 0 Warning-can be ignored, 1 Error-can not be ignored |
| languageFlag | Integer | languageType | 0Chinese, 1English |
| desDescriptionCn | String | Chinese description | |
| desSolutionCn | String | Solution | |
| solutionPath | String | Connect to solution | |
| isRepair | Integer | Check if repairable or not | 1 Repairable , 0 Non-repairable |
| isOpen | Integer | Check if turn on the intercept of the error or not | 0 Not turn on the intercept, 1 Turn on the intercept |
| updateTime | Date | The final update time | |

**Example of request:**

```
{
    "code":15000
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data":  [
        {
            "id":  5,
            "code":  "15000",
            "type":  1,
            "languageFlag":  0,
            "desDescriptionCn":  "Stuck or failed to initiate 3ds max",
            "desSolutionCn":  "1. Check if the corresponding version of 3ds max has
a special popup window, if any, manually close it; \n2. Check if the operating
system has set a high level of permissions."",

"solutionPath":  "http://note.youdao.com/noteshare?id=d8f1ea0c46dfb524af798f6b1d31cf
6f",
            "isRepair":  0,
            "isDelete":  1,
            "isOpen":  1,
            "lastModifyAdmin":  "",
            "updateTime":  1534387709000
        }
    ],
    "serverTime":  1535962451356
}
```

# Obtain the task list

**Interface path:** */api/render/task/getTaskList*

**Request parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| pageNum | Integer | Mandatary, number of current page | |
| pageSize | Integer | Mandatary, quantities of displaying per page | |
| statusList | List<Integer> | status code list, query the status of the task in the list | Check task status description for details |

**Task status description：**

| Status | Status code | Description |
|---|---|---|
| WAITING | 0 | Waiting |
| RENDERING | 5 | Rendering |
| PRE_RENDERING | 8 | Prepared to be handled |
| STOP | 10 | Stop |
| ARREARAGE_STOP | 20 | Stop due to arrearage |
| TIME_OUT_STOP | 23 | Stop due to timing out |
| FINISHED | 25 | Finished |
| FINISHED_HAS_FAILED | 30 | Finished with failed frames contained |
| ABANDON | 35 | Give up |
| FINISHED_TEST | 40 | Test completed |
| FAILED | 45 | Failed |
| ANALYSE | 50 | Analyzing |

**Return parameter: list<Task Info>**

| parameter | Type | Description | Memo |
|---|---|---|---|

| parameter | Type | Description | Memo |
|---|---|---|---|
| sceneName | | | |
| id | | | |
| taskAlias | | | |
| taskStatus | | | |
| statusText | | | |
| preTaskStatus | | | |
| preStatusText | | | |
| totalFrames | | | |
| abortFrames | | | |
| executingFrames | | | |
| doneFrames | | | |
| failedFrames | | | |
| framesRange | | | |
| projectName | | | |
| renderConsume | | | |
| taskArrears | | | |
| submitDate | | | |
| startTime | | | |
| completedDate | | | |
| renderDuration | | | |
| userName | | | |
| producer | | | |
| taskLevel | | | |

| parameter | Type | Description | Memo |
|---|---|---|---|
| taskUserLevel | | | |
| taskLimit | | | |
| taskOverTime | | | |
| outputFileName | | | |
| munuTaskId | | | |
| layerParentId | | | |
| cgId | | | |
| keyValue | | | |
| userAccountConsume | | | |
| couponConsume | | | |
| isOpen | | | |
| taskType | | | |
| renderCamera | | | |
| cloneParentId | | | |
| cloneOriginalId | | | |
| shareMainCapital | | | |
| taskRam | | | |
| respRenderingTaskList | List<Task Info> | | |
| layerName | | | |
| taskTypeText | | | |
| isDelete | | | |

**Example of request:**

```
{
    "pageNum":  1,
    "pageSize":  1
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data": {
        "pageCount":  32,
        "pageNum":  1,
        "total":  32,
        "size":  1,
        "items": [
            {
                "sceneName":  "cloakroom.max",
                "id":  18278,
                "taskAlias":  "P18278",
                "taskStatus":  0,
                "statusText":  "render_task_status_0",
                "preTaskStatus":  25,
                "preStatusText":  "render_task_status_25",
                "totalFrames":  0,
                "abortFrames":  null,
                "executingFrames":  null,
                "doneFrames":  null,
                "failedFrames":  0,
                "framesRange":  "0",
                "projectName":  "",
                "renderConsume":  null,
                "taskArrears":  0,
                "submitDate":  1535602289000,
                "startTime":  null,
                "completedDate":  null,
                "renderDuration":  null,
                "userName":  "xiaoguotu_ljian",
```

```
              "producer": null,
              "taskLevel": 79,
              "taskUserLevel": 0,
              "taskLimit": 200,
              "taskOverTime": null,
              "userId": 10001520,
              "outputFileName": null,
              "munuTaskId": "",
              "layerParentId": 0,
              "cgId": 2001,
              "keyValue": "filter_kernel:Catmull-
Rom::channel:0::gi_width:1066::openRenderBlocker:1::element_type:tga::secondary_gi_e
ngine:0::tiles:16::reflection_refraction:1::all_camera:[\"VRayCam001\", \"VRayCam002\
", \"VRayCam003\"]::renderable_camera:[\"VRayCam003\"]::displacement:1::light_cache_m
ode:0::height:2400::renderBlockerNum:16::gi:1::frames:0::gi_height:800::output_file_
type:.tga::output_file:VRayCam0030000_.tga::element_active:1::tiles_type:block::filt
er_on:1::photonnode:0::node:0::vfb:0::output_file_basename:VRayCam0030000::photonKg:
3::gi_frames:0::renderNum:1::width:3200::name:vray::irradiance_map_mode:4::primary_g
i_engine:0::image_sampler_type:1::",
              "userAccountConsume": null,
              "couponConsume": null,
              "isOpen": 1,
              "taskType": "",
              "renderCamera": "VRayCam003",
              "cloneParentId": null,
              "cloneOriginalId": null,
              "shareMainCapital": 0,
              "taskRam": null,
              "respRenderingTaskList": [
                  {
                      "sceneName": "cloakroom.max",
                      "id": 18280,
                      "taskAlias": "P18280",
                      "taskStatus": 25,
                      "statusText": "render_task_status_25",
                      "preTaskStatus": null,
                      "preStatusText": null,
                      "totalFrames": 1,
                      "abortFrames": 0,
                      "executingFrames": 0,
                      "doneFrames": 1,
```

```
                    "failedFrames":  0,
                    "framesRange":   "0",
                    "projectName":   "",
                    "renderConsume":  1.57,
                    "taskArrears":  0,
                    "submitDate":  1535602289000,
                    "startTime":  1535602601000,
                    "completedDate":  1535603874000,
                    "renderDuration":  1176,
                    "userName":  "xiaoguotu_ljian",
                    "producer":  null,
                    "taskLevel":  79,
                    "taskUserLevel":  0,
                    "taskLimit":  200,
                    "taskOverTime":  86400000,
                    "userId":  10001520,
                    "outputFileName":  "18280_cloakroom",
                    "munuTaskId":  "2018083000075",
                    "layerParentId":  18278,
                    "cgId":  2001,
                    "keyValue":  "filter_kernel:Catmull-
Rom::channel:0::gi_width:1066::openRenderBlocker:1::element_type:tga::secondary_gi_e
ngine:0::tiles:16::reflection_refraction:1::all_camera:[\"VRayCam001\", \"VRayCam002\
", \"VRayCam003\"]::renderable_camera:[\"VRayCam003\"]::displacement:1::light_cache_m
ode:0::height:2400::renderBlockerNum:16::gi:1::frames:0::gi_height:800::output_file_
type:.tga::output_file:VRayCam0030000_.tga::element_active:1::tiles_type:block::filt
er_on:1::photonnode:0::node:0::vfb:0::output_file_basename:VRayCam0030000::photonKg:
3::gi_frames:0::renderNum:1::width:3200::name:vray::irradiance_map_mode:4::primary_g
i_engine:0::image_sampler_type:1::",
                    "userAccountConsume":  0,
                    "couponConsume":  1.57,
                    "isOpen":  0,
                    "taskType":  "RenderPhoton",
                    "renderCamera":  "VRayCam003",
                    "cloneParentId":  0,
                    "cloneOriginalId":  0,
                    "shareMainCapital":  0,
                    "taskRam":  null,
                    "respRenderingTaskList":  null,
                    "layerName":  null,
                    "taskTypeText":  "render_photons_task",
```

                    "isDelete": 1
                },
                {
                    "sceneName": "cloakroom.max",
                    "id": 18281,
                    "taskAlias": "P18281",
                    "taskStatus": 25,
                    "statusText": "render_task_status_25",
                    "preTaskStatus": null,
                    "preStatusText": null,
                    "totalFrames": 17,
                    "abortFrames": 0,
                    "executingFrames": 0,
                    "doneFrames": 17,
                    "failedFrames": 0,
                    "framesRange": "0",
                    "projectName": "",
                    "renderConsume": 6.7,
                    "taskArrears": 0,
                    "submitDate": 1535602289000,
                    "startTime": 1535603885000,
                    "completedDate": 1535604765000,
                    "renderDuration": 5028,
                    "userName": "xiaoguotu_ljian",
                    "producer": null,
                    "taskLevel": 79,
                    "taskUserLevel": 0,
                    "taskLimit": 200,
                    "taskOverTime": 86400000,
                    "userId": 10001520,
                    "outputFileName": "18281_cloakroom",
                    "munuTaskId": "2018083000079",
                    "layerParentId": 18278,
                    "cgId": 2001,
                    "keyValue": "filter_kernel:Catmull-
Rom::channel:0::gi_width:1066::openRenderBlocker:1::element_type:tga::secondary_gi_e
ngine:0::tiles:16::reflection_refraction:1::all_camera:[\"VRayCam001\", \"VRayCam002\
", \"VRayCam003\"]::renderable_camera:[\"VRayCam003\"]::displacement:1::light_cache_m
ode:0::height:2400::renderBlockerNum:16::gi:1::frames:0::gi_height:800::output_file_
type:.tga::output_file:VRayCam0030000_.tga::element_active:1::tiles_type:block::filt
er_on:1::photonnode:0::node:0::vfb:0::output_file_basename:VRayCam0030000::photonKg:

```
3::gi_frames:0::renderNum:1::width:3200::name:vray::irradiance_map_mode:4::primary_g
i_engine:0::image_sampler_type:1::",
                            "userAccountConsume":  0,
                            "couponConsume":  6.7,
                            "isOpen":  0,
                            "taskType":  "Render",
                            "renderCamera":  "VRayCam003",
                            "cloneParentId":  0,
                            "cloneOriginalId":  0,
                            "shareMainCapital":  0,
                            "taskRam":  null,
                            "respRenderingTaskList":  null,
                            "layerName":  null,
                            "taskTypeText":  "render_major_picture_task",
                            "isDelete":  1
                    }
                ],
                "layerName":  null,
                "taskTypeText":  null,
                "isDelete":  1
            }
        ]
    },
    "serverTime":  1535964116655
}
```

# Stop task

**Interface path:** */api/render/task/stopTask*

**Request parameter:**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| taskParam | List<Integer> | Combination of the task ID | |

**Return parameter: default**

**Example of request:**

{

```
        "taskParam":[1111307, 1111309]
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data":  null,
    "serverTime":  1535957894211
}
```

# Start task

**Interface path:** */api/render/task/startTask*

**Request parameter:**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| taskParam | List<Integer> | Combination of the task ID | |

**Return parameter: default**

**Example of request:**

```
{
    "taskParam":[1111307, 1111309]
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
```

```
    "data": null,
    "serverTime": 1535957894211
}
```

# Abandon task

**Interface path:** */api/render/task/abortTask*

**Request parameter:**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| taskParam | List<Integer> | Combination of the task ID | |

**Return parameter: default**

**Example of request:**

```
{
    "taskParam":[1111307,1111309]
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data":  null,
    "serverTime":  1535957894211
}
```

# Delete task

**Interface path:** */api/render/task/deleteTask*

**Request parameter:**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| taskParam | List<Integer> | Task ID list | |

**Return parameter: default**

**Example of request:**

```
{
    "taskParam":[1111307,1111309]
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data":  null,
    "serverTime":  1535957894211
}
```

# Obtain the task rendering frame details

**Interface path:** */api/render/task/queryTaskFrames*

**Request parameter:**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| taskId | Integer | Task ID | Task ID, Is the unique identifier of the task, mandatary field |
| searchKeyword | String | Query based on the name of the multiple frames that rendered on one machine | Is a string that be queried based on name of the multiple frames that rendered on one machine, optional field |
| pageNum | Integer | Current page number | - |
| pageSize | Integer | Size of the data that | - |

| parameter | Type | Description | Memo |
|---|---|---|---|
| | | displayed per page | |

**Return parameter: List<FrameInfo>**

| parameter | Type | Description | Memo |
|---|---|---|---|
| id | | | |
| userId | Long | userID | |
| framePrice | Double | Render pricing | |
| feeType | Integer | Fee charge type | 0 Quantity-based, 1 Machine-bashed, 2 Project-based |
| platform | Integer | Platform | |
| frameIndex | String | Frame sequence name | |
| frameBlock | String | Current frame number | |
| frameStatus | Integer | Current frame status | 1/Waiting, 2/Processing, 3/Stopped, 4/Complete, 5/Failed, 6/Waiting for the pre-handeling, 7/Waiting for photonic frame rendering completed, 8/Waiting for the priority rendering completed, 9/ Wait for the photon job to finish rendering, 10/Waiting for the settlement job rendering completed, 11/Task timing out |
| feeAmount | Double | Balance deduction | |
| couponFee | Doubl | Vouchers | |

| parameter | Type | Description | Memo |
|---|---|---|---|
| | e | deduction | |
| startTime | Long | Start time (ms) | |
| endTime | Long | End time (ms) | |
| frameExecuteTime | Long | Rendering frame time | |
| frameStatusText | String | Frame status description | |
| arrearsFee | Double | Render frame arrears amount | |
| taskId | Long | Task ID | |
| frameType | Integer | Frame Type | 1/Pre-rendering (only one frame, even for multi-camera case), 2/photon frame, 3/combine photon frame, 4/priority frame, 5/main render frame, 6 priority /maya/max composite rendering frame, 7/maya/max rendering main picture composite frame, 8/houdini settlement frame, 9/max channel frame |
| recommitFlag | Integer | Recount times | Indicate the recount time  default is 0,increased as the recount time increase |
| taskOverTime | Integer | overtime | Overtime details |
| gopName | String | Houdini Settlemen | |

| parameter | Type | Description | Memo |
|---|---|---|---|
|  |  | t node name |  |
| frameRam | Integer | Memory of the task rendering frame | No memory requirement if description does not specified |

**Example of request:**

```
{
    "taskId": 19088,
    "pageNum": 1,
    "pageSize": 2
}
```

**Example of return:**

```
 {
  "version": "1.0.0",
  "result": true,
  "message": "success",
  "code": 200,
  "data": {
      "pageCount": 9,
      "pageNum": 1,
      "total": 17,
      "size": 2,
      "items": [
          {
              "id": 1546598,
              "userId": null,
              "framePrice": null,
              "feeType": null,
              "platform": null,
              "frameIndex": "0-1",
```

```
        "frameStatus": 4,
        "feeAmount": 0.44,
        "startTime": 1535960273000,
        "endTime": 1535960762000,
        "frameExecuteTime": 489,
        "frameStatusText": "task_frame_status_4",
        "arrearsFee": null,
        "munuJobId": "0",
        "taskId": 19088,
        "munuTaskId": "2018090300040",
        "frameType": 5,
        "couponFee": 0,
        "recommitFlag": 0,
        "isCopy": null,
        "frameBlock": "1",
        "taskOverTime": 86400000,
        "gopName": null,
        "frameRam": null
    },
    {

        "id": 1546599,
        "userId": null,
        "framePrice": null,
        "feeType": null,
        "platform": null,
        "frameIndex": "0-2",
        "frameStatus": 4,
        "feeAmount": 0.43,
        "startTime": 1535960856000,
        "endTime": 1535961338000,
        "frameExecuteTime": 482,
        "frameStatusText": "task_frame_status_4",
        "arrearsFee": null,
        "munuJobId": "1",
        "taskId": 19088,
        "munuTaskId": "2018090300040",
        "frameType": 5,
        "couponFee": 0,
        "recommitFlag": 0,
        "isCopy": null,
        "frameBlock": "2",
```

```
            "taskOverTime":  86400000,
            "gopName":  null,
            "frameRam":  null
        }
    ]
},
"serverTime":  1535966967143
}
```

# Obtain the overview of task rendering frames

**Interface path:** */api/render/task/queryAllFrameStats*

**Request parameter: default**

**Return parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| executingFramesTotal | Integer | Number of frames in rendering | |
| doneFramesTotal | Integer | Number of frames completed | |
| failedFramesTotal | Integer | Number of rendered frames failed | |
| waitingFramesTotal | Integer | Number of frames in waiting | |
| totalFrames | Integer | Number of overall rendered frames | |

**Example of request: default**

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data": {
        "executingFramesTotal":  1,
        "doneFramesTotal":  308,
        "failedFramesTotal":  2,
        "waitingFramesTotal":  153,
        "totalFrames":  577
```

```
    },
    "serverTime":  1535968038725
}
```

# Re-submit the failed frames

**Interface path:** */api/render/task/restartFailedFrames*

**Request parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| taskParam | List<Integer> | Task ID list | |

**Return parameter: default**

**Example of request:**

```
{
    "taskParam":[1111307,1111309]
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data":  null,
    "serverTime":  1535957894211
}
```

# Re-submit the specified frames

**Interface path:** */api/render/task/restartFrame*

**Request parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|

| parameter | Type | Description | Memo |
|---|---|---|---|
| taskId | Integer | Task ID | |
| ids | List<Integer> | Combine the frame ID | Effective if 0 displayed when selectALL |
| selectAll | Integer | Choose if re-submit all | 1 All, 0 Only the specified frame |

**Return parameter: default**

**Example of request:**

```
{
    "taskId": 10001,
    "selectAll":0,
    "ids":[0,1,2,3]
}
```

**Example of return:**

```
{
    "version": "1.0.0",
    "result": true,
    "message": "success",
    "code": 200,
    "data": null,
    "serverTime": 1535957894211
}
```

# Obtain 任务详情 Obtain the task details

**Interface path:** */api/render/task/queryTaskInfo*

**Request parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| taskIds | List<Integer> | Combine the <mark>shell task</mark> ID | |

**Return parameter: List<TaskInfo>**

| parameter | Type | Description | Memo |
|---|---|---|---|
| sceneName | | | |
| id | | | |
| taskAlias | | | |
| taskStatus | | | |
| statusText | | | |
| preTaskStatus | | | |
| preStatusText | | | |
| totalFrames | | | |
| abortFrames | | | |
| executingFrames | | | |
| doneFrames | | | |
| failedFrames | | | |
| framesRange | | | |
| projectName | | | |
| renderConsume | | | |
| taskArrears | | | |
| submitDate | | | |
| startTime | | | |
| completedDate | | | |
| renderDuration | | | |
| userName | | | |
| producer | | | |

| parameter | Type | Description | Memo |
|---|---|---|---|
| taskLevel | | | |
| taskUserLevel | | | |
| taskLimit | | | |
| taskOverTime | | | |
| outputFileName | | | |
| munuTaskId | | | |
| layerParentId | | | |
| cgId | | | |
| keyValue | | | |
| userAccountConsume | | | |
| couponConsume | | | |
| isOpen | | | |
| taskType | | | |
| renderCamera | | | |
| cloneParentId | | | |
| cloneOriginalId | | | |
| shareMainCapital | | | |
| taskRam | | | |
| respRenderingTaskList | List<TaskInfo> | | |
| layerName | | | |
| taskTypeText | | | |
| isDelete | | | |

**Example of request:**

```
{
    "taskIds": [19084]
}
```

**Example of return:**
```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data": {
        "pageCount":  1,
        "pageNum":  1,
        "total":  1,
        "size":  100,
        "items": [
            {
                "sceneName":  "3d66.com_593362_2018.max",
                "id":  19084,
                "taskAlias":  "P19084",
                "taskStatus":  0,
                "statusText":  "render_task_status_0",
                "preTaskStatus":  25,
                "preStatusText":  "render_task_status_25",
                "totalFrames":  0,
                "abortFrames":  null,
                "executingFrames":  null,
                "doneFrames":  null,
                "failedFrames":  0,
                "framesRange":  "0",
                "projectName":  "",
                "renderConsume":  null,
                "taskArrears":  0,
                "submitDate":  1535958477000,
                "startTime":  null,
                "completedDate":  null,
                "renderDuration":  null,
                "userName":  "xiaoguotu_ljian",
                "producer":  null,
                "taskLevel":  60,
```

"taskUserLevel": 0,
"taskLimit": null,
"taskOverTime": null,
"userId": 10001520,
"outputFileName": null,
"munuTaskId": "",
"layerParentId": 0,
"cgId": 2001,
"keyValue": "filter_kernel:Catmull-Rom::channel:0::gi_width:666::openRenderBlocker:1::element_type:tga::secondary_gi_engine:3::tiles:16::reflection_refraction:1::all_camera:[\"Camera001\"]::renderable_camera:[\"Camera001\"]::displacement:0::light_cache_mode:0::height:1400::renderBlockerNum:16::gi:1::frames:0::gi_height:466::output_file_type:.tga::output_file:Renderbus_.tga::element_active:1::tiles_type:block::filter_on:1::photonnode:0::node:0::vfb:0::output_file_basename:Renderbus::photonKg:3::gi_frames:0::renderNum:1::width:2000::name:vray::irradiance_map_mode:4::primary_gi_engine:0::image_sampler_type:1::",
"userAccountConsume": null,
"couponConsume": null,
"isOpen": 1,
"taskType": "",
"renderCamera": "Camera001",
"cloneParentId": null,
"cloneOriginalId": null,
"shareMainCapital": 0,
"taskRam": null,
"respRenderingTaskList": [
    {
        "sceneName": "3d66.com_593362_2018.max",
        "id": 19087,
        "taskAlias": "P19087",
        "taskStatus": 25,
        "statusText": "render_task_status_25",
        "preTaskStatus": null,
        "preStatusText": null,
        "totalFrames": 1,
        "abortFrames": 0,
        "executingFrames": 0,
        "doneFrames": 1,
        "failedFrames": 0,
        "framesRange": "0",
        "projectName": "",

                    "renderConsume":  1.31,
                    "taskArrears":  0,
                    "submitDate":  1535958477000,
                    "startTime":  1535958658000,
                    "completedDate":  1535960243000,
                    "renderDuration":  1471,
                    "userName":  "xiaoguotu_ljian",
                    "producer":  null,
                    "taskLevel":  60,
                    "taskUserLevel":  0,
                    "taskLimit":  null,
                    "taskOverTime":  86400000,
                    "userId":  10001520,
                    "outputFileName":  "19087_3d66.com_593362_2018",
                    "munuTaskId":  "2018090300037",
                    "layerParentId":  19084,
                    "cgId":  2001,
                    "keyValue":  "filter_kernel:Catmull-
Rom::channel:0::gi_width:666::openRenderBlocker:1::element_type:tga::secondary_gi_en
gine:3::tiles:16::reflection_refraction:1::all_camera:[\"Camera001\"]::renderable_ca
mera:[\"Camera001\"]::displacement:0::light_cache_mode:0::height:1400::renderBlocker
Num:16::gi:1::frames:0::gi_height:466::output_file_type:.tga::output_file:Renderbus_.
tga::element_active:1::tiles_type:block::filter_on:1::photonnode:0::node:0::vfb:0::o
utput_file_basename:Renderbus::photonKg:3::gi_frames:0::renderNum:1::width:2000::nam
e:vray::irradiance_map_mode:4::primary_gi_engine:0::image_sampler_type:1::",
                    "userAccountConsume":  1.31,
                    "couponConsume":  0,
                    "isOpen":  0,
                    "taskType":  "RenderPhoton",
                    "renderCamera":  "Camera001",
                    "cloneParentId":  0,
                    "cloneOriginalId":  0,
                    "shareMainCapital":  0,
                    "taskRam":  null,
                    "respRenderingTaskList":  null,
                    "layerName":  null,
                    "taskTypeText":  "render_photons_task",
                    "isDelete":  1
                },
                {
                    "sceneName":  "3d66.com_593362_2018.max",

```
"id":  19088,
"taskAlias":  "P19088",
"taskStatus":  10,
"statusText":  "render_task_status_10",
"preTaskStatus":  null,
"preStatusText":  null,
"totalFrames":  17,
"abortFrames":  6,
"executingFrames":  0,
"doneFrames":  11,
"failedFrames":  0,
"framesRange":  "0",
"projectName":  "",
"renderConsume":  4.84,
"taskArrears":  0,
"submitDate":  1535958477000,
"startTime":  1535960247000,
"completedDate":  1535967000000,
"renderDuration":  5420,
"userName":  "xiaoguotu_ljian",
"producer":  null,
"taskLevel":  60,
"taskUserLevel":  0,
"taskLimit":  null,
"taskOverTime":  86400000,
"userId":  10001520,
"outputFileName":  "19088_3d66.com_593362_2018",
"munuTaskId":  "2018090300040",
"layerParentId":  19084,
"cgId":  2001,
"keyValue":  "filter_kernel:Catmull-
Rom::channel:0::gi_width:666::openRenderBlocker:1::element_type:tga::secondary_gi_en
gine:3::tiles:16::reflection_refraction:1::all_camera:[\"Camera001\"]::renderable_ca
mera:[\"Camera001\"]::displacement:0::light_cache_mode:0::height:1400::renderBlocker
Num:16::gi:1::frames:0::gi_height:466::output_file_type:.tga::output_file:Renderbus_.
tga::element_active:1::tiles_type:block::filter_on:1::photonnode:0::node:0::vfb:0::o
utput_file_basename:Renderbus::photonKg:3::gi_frames:0::renderNum:1::width:2000::nam
e:vray::irradiance_map_mode:4::primary_gi_engine:0::image_sampler_type:1::",
"userAccountConsume":  4.84,
"couponConsume":  0,
"isOpen":  0,
```

```
                    "taskType": "Render",
                    "renderCamera": "Camera001",
                    "cloneParentId": 0,
                    "cloneOriginalId": 0,
                    "shareMainCapital": 0,
                    "taskRam": null,
                    "respRenderingTaskList": null,
                    "layerName": null,
                    "taskTypeText": "render_major_picture_task",
                    "isDelete": 1
                }
            ],
            "layerName": null,
            "taskTypeText": null,
            "isDelete": 1
        }
    ]
},
    "serverTime": 1535969100700
}
```

# Add a custom label

**Interface path:** */api/render/common/addLabel*

**Request parameter:**

| parameter | Type | Description | Memo |
|-----------|--------|--------------|------|
| newName | String | Label name | |
| status | String | Lable status | |

**Return parameter: default**

**Example of request:**
```
{
    "newName": "myLabel",
    "status": 0
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data":  null,
    "serverTime":  1535957894211
}
```

# Delete custom label

**Interface path:** *api/render/common/deleteLabel*

**Request parameter:**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| delName | String | Label name | |

**Return parameter: default**

**Example of request:**

```
{
    "delName":  "myLabel"
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data":  null,
    "serverTime":  1535957894211
}
```

# Obtain custom label

**Interface path:** */api/render/common/getLabelList*

**Request parameter: default**

**Return parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| projectNameList | List | Project name list | |
| Object.projectName | String | Project name | |
| Object.projectId | Integer | Project id | |

**Example of request:**

```
{}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data": {
        "projectNameList": [
            {
                "projectId":  3671,
                "projectName":  "myLabel"
            }
        ]
    },
    "serverTime":  1546998557770
}
```

# Obtain the supported rendering software

**Interface path:** */api/render/common/querySupportedSoftware*

**Request parameter: default**

**Return parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| isAutoCommit | Integer | Choose if submit automatically or not | |
| renderInfoList | List\<Software\> | Renderer version list | |
| defaultCgId | Integer | Default renderer ID | |

**Software**

| parameter | Type | Description | Memo |
|---|---|---|---|
| cgId | Integer | Render software ID | |
| cgName | String | Render software name | |
| cgType | String | Render file suffix support | |
| iconPath | String | Rendering software icon address | |
| isNeedProjectPath | Integer | | |
| isNeedAnalyse | Integer | Need to analyze | |
| isSupportLinux | Integer | Indicates if linux is supported or not | |

**Example of request: default**

**Example of return:**

```
{
  "version": "1.0.0",
  "result": true,
  "message": "success",
  "code": 200,
  "data": {
      "isAutoCommit": 2,
      "renderInfoList": [
          {
              "cgId": 2000,
```

```
            "cgName":  "Maya",
            "cgType":  "ma;mb",
            "iconPath":  "/img/softimage/maya.png",
            "isNeedProjectPath":  3,
            "isNeedAnalyse":  1,
            "isSupportLinux":  1
        }
    ],
    "defaultCgId":  2001
    },
    "serverTime":  1535973558961
}
```

# Obtain supported rendering software plugins

**Interface path:** */api/render/common/querySupportedPlugin*

**Request parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| cgId | Render software ID | | |

**Return parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| cgPlugin | List<Plugin> | Supported plugin list | |
| cgVersion | List<Soft Version> | Supported software list | |

**Plugin**

| parameter | Type | Description | Memo |
|---|---|---|---|
| cvId | Integer | Rendering software version ID (Soft Version.id) | |
| pluginName | String | Plugin name | |
| pluginVersions | List<Plugin Version> | Plugin version list | |

**PluginVersion**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| pluginId | Integer | Plugin version ID | |
| pluginName | String | Plugin name | |
| pluginVersion | String | Plugin version | |

**SoftVersion**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| id | Integer | Render software version ID | |
| cgId | Integer | Render software ID | |
| cgName | String | Render software name | |
| cgVersion | String | Render software version | |

**Example of request:**

```
{
    "cgId":  2012
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data": {
        "cgPlugin": [
            {
                "cvId":  19,
```

```
            "pluginName":  "zblur",
            "pluginVersions": [
                {
                    "pluginId":  1652,
                    "pluginName":  "zblur",
                    "pluginVersion":  "zblur 2.02.019"
                }
            ]
        },
    ],
    "cgVersion": [
        {
            "id":  23,
            "cgId":  2005,
            "cgName":  "CINEMA 4D",
            "cgVersion":  "R19"
        }
    ]
    },
    "serverTime":  1535973841043
}
```

# New user rendering environment configuration

**Interface path:** *api/render/common/addRenderEnv*

**Request parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| cgId | Integer | Render software ID | Soft Version.cgId |
| cgName | String | Render software name | Soft Version.cgName |
| cgVersion | String | Render software version | Soft Version.cgVersion |
| renderLayerType | Integer | Maya render Type | |
| editName | String | render environment custom name | |
| renderSystem | Integer | Render system | 0 linux, 1 windows |

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| pluginIds | List\<Integer\> | render plugin list | Plugin Version.plugin Id |

**Return parameter:**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| editName | String | render environment custom name | |

**Example of request:**

```
{
    "cgId":  2000,
    "cgName":  "Maya",
    "cgVersion":  "2020",
    "renderLayerType":0,
    "editName":"testRenderEnv",
    "renderSystem":"0",
    "pluginIds":[1166]
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data": {
        "editName":  "testRenderEnv"
    },
    "serverTime":  1535957894211
}
```

# Adjust user render environment configuration

**Interface path:** */api/render/common/updateRenderEnv*

**Request parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| cgId | Integer | Render software ID | **Soft Version.cgId** |
| cgName | String | Render software name | **Soft Version.cgName** |
| cgVersion | String | Render software version | **Soft Version.cgVersion** |
| renderLayerType | Integer | Maya render Type | |
| editName | String | render environment custom name | Adjust the configuration name that required a passing |
| renderSystem | Integer | Render system | 0 linux, 1 windows |
| pluginIds | List<Integer> | render plugin list | **Plugin Version plugin Id** |

**Return parameter: default**

**Example of request:**

```
{
    "cgId": 2000,
    "cgName": "Maya",
    "cgVersion": "2020",
    "renderLayerType":0,
    "editName":"testRenderEnv",
    "renderSystem":"0",
    "pluginIds":[]
}
```

**Example of return:**

```
{
    "version": "1.0.0",
    "result": true,
    "message": "success",
    "code": 200,
    "data": null,
    "serverTime": 1536027063801
}
```

# Delete user render environment configuration

**Interface path:** */api/render/common/deleteRenderEnv*

**Request parameter:**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| editName | String | render environment custom name | |

**Return parameter: default**

**Example of request:**
```
{
    "editName":"testRenderEnv"
}
```

**Example of return:**

```
{
    "version": "1.0.0",
    "result": true,
    "message": "success",
    "code": 200,
    "data": null,
    "serverTime": 1536027063801
}
```

# Set up default render environment configuration

**Interface path**: */api/render/common/setDefaultRenderEnv*

**Request parameter:**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| editName | String | render environment custom name | |

**Return parameter: default**

**Example of request:**

```
{
    "editName":"testRenderEnv"
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
    "code":  200,
    "data":  null,
    "serverTime":  1536027063801
}
```

# Obtain user render environment configuration

**Interface path:** */api/render/common/getRenderEnv*

**Request parameter:**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| cgId | Integer | Render software ID | |

**Return parameter: List<RenderEnv>**

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
| cgId | Integer | Render software | |

| parameter | Type | Description | Memo |
|---|---|---|---|
|  |  | ID |  |
| editName | String | render environment custom name |  |
| cgName | String | Render software name |  |
| cgVersion | String | Render software version |  |
| osName | Integer | render environment system | 0Linux, 1windows |
| renderLayerType | Integer |  |  |
| isDefault | Integer | Check if it is the default configuration | 0 Not default configuration 1 Is default configuration |
| respUserPluginInfoVos | List<**Plugin Version**> | render environment plugin list |  |

**Example of request:**

```
{
    "cgId":"2000"
}
```

**Example of return:**

```
{
    "version":  "1.0.0",
    "result":  true,
    "message":  "success",
```

```
    "code": 200,
    "data": [
        {
            "cgId": 2000,
            "editName": "testRenderEnv332",
            "cgName": "Maya",
            "cgVersion": "2020",
            "osName": 0,
            "renderLayerType": 0,
            "isDefault": 0,
            "respUserPluginInfoVos": [
                {
                    "pluginId": 1166,
                    "pluginName": "wobble",
                    "pluginVersion": "wobble 0.9.5"
                }
            ]
        },
        {
            "cgId": 2000,
            "editName": "testRenderEnv222",
            "cgName": "Maya",
            "cgVersion": "2020",
            "osName": 0,
            "renderLayerType": 0,
            "isDefault": 0,
            "respUserPluginInfoVos": [
                {
                    "pluginId": 1166,
                    "pluginName": "wobble",
                    "pluginVersion": "wobble 0.9.5"
                }
            ]
        }
    ],
    "serverTime": 1536028132519
}
```

## Task Progress

**Interface path:** /api/render/task/loadTaskProcessImg

**Request parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| taskId | Integer | Task ID | required |
| frameType | Integer | Frame type | 2：photon，5：picture<br><br>Without transmission, the background will dynamically return the results according to the stage of the rendering task |

**Return parameter:**

| parameter | Type | Description | Memo |
|---|---|---|---|
| width | Integer | Image resolution width | |
| height | Integer | Image resolution height | |
| block | Integer | Block number | |
| isRenderPhoton | Boolean | Is render photon | True:task is render photon |
| currentTaskType | String | Task render stage | Render: render picture RenderPhoton: render photon |
| sceneName | String | Scene name+camera name | |

| parameter | Type | Description | Memo |
|---|---|---|---|
| startTime | String | Task start time | |
| endTime | String | Task end time | |
| grabInfo | List<List<Object>> | Block frame info | |

Block frame info：grabInfo.Object

| parameter | Type | Description | Memo |
|---|---|---|---|
| startTime | String | Start time | |
| endTime | String | End time | |
| frameStatus | String | Frame status | |
| isMaxPrice | String | Is max picture | |
| feeAmount | String | Fee amount | |
| couponFee | String | Coupon fee | |
| frameIndex | String | Frame number | |
| frameBlock | String | Block number | |
| framePercent | String | Frame render percent | |
| frameUsed | String | Frame render time consumed | |
| frameEst | String | Predicted Remaining Time for Frame | |

| parameter | Type | Description | Memo |
|-----------|------|-------------|------|
|           |      | Rendering   |      |
| renderInfo | String | Frame Rendering Progress Information | |
| grabUrl | String | Frame Rendering Schedule Connection Address | |

**Example of request:**
```
{
    "taskId":389406
}
```

**Example of return:**

```
{
    "block":16,
    "currentTaskType":"Render",
    "grabInfo":[
        [
            {
                "couponFee":"0.00",
                "frameIndex":"0",
                "renderInfo":"",
                "frameBlock":"1",
                "frameEst":"0",
```
"grabUrl":"/mnt/output/d20/small_pic/10001500/10001834/389406/Render_2018110900083_0_frame_0[
]tga.jpg",
```
                "feeAmount":"0.20",
                "frameUsed":"66",
```

            "frameStatus":"4",
            "framePercent":"100",
            "isMaxPrice":"0",
            "startTime":"2018-11-09 18:28:26",
            "endTime":"2018-11-09 18:29:32"
        }
      ]
    ],
    "height":1500,
    "sceneName":"3d66.com_589250.max-Camera007",
    "startTime":"2018-11-09 18:27:40",
    "width":2000
}