**1. Application installation and Deployment**

Download all py files from https://github.com/zx877613097/-Flood-Control-Operation-of-Reservoir-Group, open the **demo3.py** file, configure the relevant python environment, and run it directly.

**2. Interface Description**

Request Protocol：HTTP

Request Method：POST

Request parameters

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Description** | **Type** |
| qy | Reservoir and section forecast water inflow | dict |
| sw | Reservoir water level control value | dict |
| ck | Reservoir discharge control value | dict |
| tianran | Section natural water inflow | dict |
| zmin | Reservoir minimum water level | dict |
| num1 | Number of time periods | dict |
| dq | Reservoir discharge amplitude | dict |
| dtt | Time period length | dict |
| ze | Reservoir end water level constraint | dict |
| q0 | Reservoir current discharge | dict |
| z0 | Reservoir current water level | dict |
| lastTime | Minimum control value time | dict |
| time | Dispatch time | dict |
| id | Reservoir ID | dict |
| moshi | Reservoir dispatch model | dict |
| method | Malfa calculation method | dict |
| pollow | Consider subsequent rainfall | dict |
| Qan | Section safety discharge | dict |
| system | Subsystem name | dict |

Return Parameter

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **Description** | **Parameter** | **Description** | **Type** |
| fhdw | Flood control point parameters | all | All inflows to flood control points | dict |
| fhdzz | Water level process of flood control points |
| qujian | Inflows between flood control points |
| tianran | Natural flow at flood control points |
| upper\_qc | Flows calculated from each reservoir to flood control points |
| upper\_qc\_all | Total flow calculated from reservoir to flood control points |
| resw | Reservoir parameters | qc | Reservoir outflow process | dict |
| qcMsjg | Reservoir calculation to section |
| qujian | Water inflow between reservoirs |
| qy | Reservoir forecast inflow |
| sw | Reservoir water level control value |
| ck | Reservoir outflow control value (if it is a command dispatch model, it is a command outflow) |
| vj | Reservoir capacity change process |
| xy | Downstream flow |
| xyzz | Downstream water level |
| zhamen | Reservoir gate outflow |
| zz | Reservoir water level change process |
| zmin | Reservoir minimum water level |
| dq | Reservoir outflow amplitude |
| dtt | Period length |
| ze | Reservoir end-of-period water level constraint |
| q0 | Current outflow from reservoir |
| z0 | Current water level of reservoir |
| time | Dispatching time |
| lasttime | Minimum control value time |
| moshi | Reservoir dispatch mode |
| num1 | Number of time periods |
| method | Evolution method |
| zb | Reservoir and section index values | Wqc | Outflow water | dict |
| Wqy | Inflow reservoir |  |
| maxQc | Maximum outflow flow |  |
| maxQy | Maximum inflow flow |  |
| maxZ | Highest water level |  |
| pointQc | Maximum outflow time |  |
| pointZ | Highest water level time |  |
| tiaoxu | Regulation rate |  |
| xuefeng | Peak shaving rate |  |
| xyQ | Downstream maximum flow |  |
| xyZ | Downstream maximum water level |  |
| time | Dispatch time |  |  | date |