**\*\*\*\*\*\*\*\*\*\*\*\*\* Dock Master Api Documentation \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

In DockMaster-backEnd we use the standard HTTP/1.1 methods ([RFC-2616](https://tools.ietf.org/html/rfc2616)), such as GET and POST to send JSON objects in request bodies with GET semantics.

**JSON Request Body**

parameters should be set as a key-value pair of the JSON object in the HTTP request body. The API server accepts both UTF-8 encoded bytes and standard-compliant Unicode-escaped strings in the body.

The API responses always contain a root JSON object.

This documentation uses a type annotation style,the common types are array (JSON array), object (JSON object), int (integer-only subset of JSON number), str (JSON string), and bool (JSON true or false).

Optional values may be omitted or set to null or 0.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Get Pontoons Information \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**http://localhost:3004/api/getPontoonsInfo(get)**

[

    "ruleLength": 239.75,

    "maxPontoonDive": 4.2,

    "pontoonConfig": [

        {

            "id": 1,

            "xCoordinate": 223.3,

            "deflectionLimit": 1.2,

            "offset": 0.31

        },

        {

            "id": 2,

            "xCoordinate": 223.3,

            "deflectionLimit": 1.91,

            "offset": 0.35

        },

        {

            "id": 3,

            "xCoordinate": 187.92,

            "deflectionLimit": 2.51,

            "offset": 0.33

        },

        {

            "id": 4,

            "xCoordinate": 187.92,

            "deflectionLimit": 2.99,

            "offset": 0.36

        },

        {

            "id": 5,

            "xCoordinate": 159.79,

            "deflectionLimit": 3.33,

            "offset": 0.38

        },

    Etc..

]

From above Api front end can fetch information about pontoons like max pontoon dive and list of pontoons configuration containing id,the x-Coordinate, deflection Limit (alarm) and offset for each pontoon.

**\*Get current draft of Pontoons**

**http://localhost:3001/api/getCurrentPontoons(get)**

List of current draft, x-Coordinate and ship side of all pontoons as demonstrated below .

**Ship side** :Port or Starboard

**{**

    "1": {

        "id": 1,

        "xCoordinate": 223.3,

        "currentDraft": 1.512798,

        "shipSide": "PORT"

    },

    "2": {

        "id": 2,

        "xCoordinate": 223.3,

        "currentDraft": 2.975596,

        "shipSide": "STARBOARD"

    },

    "3": {

        "id": 3,

        "xCoordinate": 187.92,

        "currentDraft": 3.7151213,

        "shipSide": "PORT"

    },

    "4": {

        "id": 4,

        "xCoordinate": 187.92,

        "currentDraft": 2.5489464,

        "shipSide": "STARBOARD"

    },

    "5": {

        "id": 5,

        "xCoordinate": 159.79,

        "currentDraft": 2.0003972,

        "shipSide": "PORT"

    },

    "6": {

        "id": 6,

        "xCoordinate": 159.79,

        "currentDraft": 0.40984833,

        "shipSide": "STARBOARD"

    },

    "7": {

        "id": 7,

        "xCoordinate": 139.56,

        "currentDraft": 2.975596,

        "shipSide": "PORT"

},

Etc..

**}**

**\*Get reference draft of Pontoons**

**http://localhost:3001/api/getReferencePontoons (get)**

**{**

    "1": {

        "id": 1,

        "xCoordinate": 223.3,

        "refDraft": 1.5127981,

        "shipSide": "PORT"

    },

    "2": {

        "id": 2,

        "xCoordinate": 223.3,

        "refDraft": 2.975596,

        "shipSide": "STARBOARD"

    },

    "3": {

        "id": 3,

        "xCoordinate": 187.92,

        "refDraft": 1.6104676,

        "shipSide": "PORT"

    },

    "4": {

        "id": 4,

        "xCoordinate": 187.92,

        "refDraft": 2.6571047,

        "shipSide": "STARBOARD"

    },

    "5": {

        "id": 5,

        "xCoordinate": 159.79,

        "refDraft": 1.6881227,

        "shipSide": "PORT"

    },

    "6": {

        "id": 6,

        "xCoordinate": 159.79,

        "refDraft": 2.403878,

        "shipSide": "STARBOARD"

    },

    "7": {

        "id": 7,

        "xCoordinate": 139.56,

        "refDraft": 1.7439694,

        "shipSide": "PORT"

    },

    "8": {

        "id": 8,

        "xCoordinate": 139.56,

        "refDraft": 2.2217672,

        "shipSide": "STARBOARD"

    },

    "9": {

        "id": 9,

        "xCoordinate": 119.26,

        "refDraft": 1.8000093,

        "shipSide": "PORT"

},

    Etc..

**}**

**\*Accept pontoon alarm**

**http://localhost:3001/api/acceptPontoon(post)**

Front end can send post request with pontoon id to accept the alarm.

 {

       "pontoon\_id": 3

   }

**\*Get Pontoons Table.**

**http://localhost:3001/api/pontoonsTable(get)**

In this Api we can get current status of all pontoons like alarm name ,current draft, reference draft etc..

## If alarm name has null value that means the current pontoon has no alarm otherwise alarm name will displayed.

**[**

    {

        "pontoon\_id": 1,

        "alarm\_name": null,

        "xCoordinate": 223.3,

        "deflectionLimit": 1.2,

        "offset": 0.31,

        "currentDraft": 5.90116,

        "refDraft": 5.90116,

        "shipSide": "PORT"

    },

    {

        "pontoon\_id": 2,

        "alarm\_name": null,

        "xCoordinate": 223.3,

        "deflectionLimit": 1.91,

        "offset": 0.35,

        "currentDraft": 6.87637,

        "refDraft": 6.87637,

        "shipSide": "STARBOARD"

    },

    {

        "pontoon\_id": 3,

        "alarm\_name": null,

        "xCoordinate": 187.92,

        "deflectionLimit": 2.51,

        "offset": 0.33,

        "currentDraft": 4.71478,

        "refDraft": 5.26418,

        "shipSide": "PORT"

    },

    {

        "pontoon\_id": 4,

        "alarm\_name": "Pontoon 4 Alarm",

        "xCoordinate": 187.92,

        "deflectionLimit": 2.99,

        "offset": 0.36,

        "currentDraft": 5.26013,

        "refDraft": 5.90486,

        "shipSide": "STARBOARD"

    },

Etc..

**]**

**\*Get hundred alarms**

**<http://localhost:3001/api/hundredAlarms(get)>**

[

    {

        "alarm\_id": 1,

        "pontoon\_id": 6,

        "alarm\_name": "Pontoon 6 Alarm",

        "alarm\_date": "2020-08-18 09:19:47",

        "acknowledged": 0,

        "alarm\_description": "Active unaccepted alarm",

        "alarm\_active": 1,

        "alarm\_state": 1,

        "time\_accepted": null,

        "time\_retrieved": null

    },

    {

        "alarm\_id": 2,

        "pontoon\_id": 4,

        "alarm\_name": "Pontoon 4 Alarm",

        "alarm\_date": "2020-08-18 09:35:39",

        "acknowledged": 0,

        "alarm\_description": "Inactive unaccepted",

        "alarm\_active": 0,

        "alarm\_state": 3,

        "time\_accepted": null,

        "time\_retrieved": "2020-08-18 09:41:01"

    },

    {

        "alarm\_id": 3,

        "pontoon\_id": 9,

        "alarm\_name": "Pontoon 9 Alarm",

        "alarm\_date": "2020-08-18 09:35:39",

        "acknowledged": 0,

        "alarm\_description": "Inactive unaccepted",

        "alarm\_active": 0,

        "alarm\_state": 3,

        "time\_accepted": null,

        "time\_retrieved": "2020-08-18 09:36:07"

    }

]

In above api we get latest hundred alarms .

## Alarm state parameter represents four alarm state as follows :

Alarm\_state :1 (red alarm Active unaccepted alarm)

Alarm\_state :2 (orange alarm Alarm accepted)

Alarm\_state :3 (blue alarm Inactive unaccepted)

Alarm\_state :4 (grey alarm Archived Alarm)

**\*Get hundred alarms**

[**http://localhost:3001/api/getHeel(get)**](http://localhost:3001/api/getHeel(get))

In this Api we can get the heeling (difference between port side average and starboard average),

and delta between pontoons of port and starboard sides.

{

    "heeling": 0.12670398,

    "deltaDrafts": [

        {

            "deltaDraft": -0.97519875,

            "deltaDraftName": "Delta Draft 1"

        },

        {

            "deltaDraft": -0.33319283,

            "deltaDraftName": "Delta Draft 2"

        },

        {

            "deltaDraft": 1.5905489,

            "deltaDraftName": "Delta Draft 3"

        },

        {

            "deltaDraft": 0.48759985,

            "deltaDraftName": "Delta Draft 4"

        },

        {

            "deltaDraft": -0.95081866,

            "deltaDraftName": "Delta Draft 5"

        },

        {

            "deltaDraft": -0.73395586,

            "deltaDraftName": "Delta Draft 6"

        },

        {

            "deltaDraft": 0.9055414,

            "deltaDraftName": "Delta Draft 7"

        },

        {

            "deltaDraft": 1.02311,

            "deltaDraftName": "Delta Draft 8"

        }

    ]

}