

Contents

Version: 1.1.0

Get Started

Authentication

General Error Handling

WebSocket Configuration

Securing the connection

Code examples

[login](#) - Login into SvanLINK

[logout](#) - Logout

[setNewPassword](#) - change access password

[licenseStatus](#) - get license status

[setLicense](#) - activate new licence key

[getStatus](#) - Get device statuses

[getResults](#) - Get measurement results

[getSpectrumResults](#) - Get spectrum results

[startMeasurement](#) - Start measurements

[stopMeasurement](#) - Stop measurements

[getConfig](#) - Get configuration

[setConfig](#) - Set configuration

[getSetup](#) - Get setup from connected device

[setSetup](#) - Upload setup to connected device

[copySetup](#) - Copy setup from device to device(s)

[sendRawCommand](#) - Send # type command

[getFileList](#) - Get file list from devices

[downloadFile](#) - Download single file from device

[downloadFiles](#) - Download multiple files from devices

[deleteFile](#) - delete file from device

[getVersion](#) - get current app version

[checkUpdate](#) - check for updates

[downloadUpdate](#) - download updates

[installUpdate](#) - install updates

WebSocket only requests:

[subscribeChannel](#) - subscribe to channel

[getChannelList](#) - get list of channels

[deleteChannel](#) - delete channel

Get Started

To get started with the SvanLINK application, follow these steps:

Linux

1. Download the zip file containing the application.
2. Unpack the zip file:

```
unzip svanlink_os_osType.zip
```

3. Navigate to the unpacked directory:

```
cd svanlink
```

4. Make the binaries executable:

```
chmod +x svanlink  
chmod +x restart
```

5. Run the application:

```
sudo ./svanlink
```

Windows

Run the installation file and follow the instructions.

The API requests by default are sent to local address on TCP port **8000**.

In browser under the local address on port **80** (default http port) should be available UI of the app. For example: **<http://localhost>**

Mac OS

Run the installation file and follow the instructions.

The API requests by default are sent to local address on TCP port `8000`.

In browser under the local address on port `3000` (default http port) should be available UI of the app. For example: `http://localhost:3000`

Authentication

Overview

SvanLINK API uses token-based authentication to secure access to all endpoints. Authentication is required for all API requests except for the initial login request.

Authentication Flow

1. **Login:** Send a [login](#) request with your password to obtain an authentication token.
2. **Token Usage:** Include the token in all subsequent API requests using the `token` parameter.
3. **Logout:** Use the [logout](#) request to invalidate the token when you're done.

Token Lifecycle

Creation: Tokens are generated upon successful login and are cryptographically secure.

Usage: Tokens must be included in the request body of all authenticated endpoints.

Expiration: Tokens remain valid until explicitly logged out or the SvanLINK application is restarted.

Invalidation: Tokens can be invalidated by calling the logout endpoint or by restarting the SvanLINK application.

Security Considerations

Token Storage: Store tokens securely and never expose them in client-side code or logs.

HTTPS/WSS: Use secure connections (HTTPS for HTTP API, WSS for WebSocket) when transmitting tokens over the network.

Token Rotation: Regularly log out and re-authenticate to obtain new tokens.

Network Security: Ensure your network is secure, especially when using the default localhost configuration.

Password Security: Use strong passwords and change the default password using the [setNewPassword](#) endpoint.

Error Handling

When authentication fails, the API will return an error response:

```
{  
  "Request": "endpointName",  
  "Status": "error",  
  "StatusMessage": "Invalid token"  
}
```

WebSocket Authentication

For WebSocket connections, authentication can be performed in two ways:

1. **Login Request:** Send a login request as the first message after establishing the WebSocket connection.
2. **Token Only:** Send just the token string (without wrapping it in a request object) if you already have a valid token.

Example Authentication Flow

```
// 1. Login to obtain token
{
  "Request": "login",
  "Params": {
    "password": "your_password"
  }
}

// 2. Use token in subsequent requests
{
  "Request": "getStatus",
  "token": "your_token_here"
}

// 3. Logout when done
{
  "Request": "logout",
  "token": "your_token_here"
}
```

General Error Handling

Overview

All SvanLINK API endpoints follow a consistent error response format. Understanding these error patterns will help you handle errors gracefully in your applications.

Standard Error Response Format

When an error occurs, the API returns a JSON response with the following structure:

```
{  
  "Request": "endpointName",  
  "Status": "error",  
  "StatusMessage": "Description of the error"  
}
```

Error Response Fields

Request: Reflects back the original request type that caused the error.

Status: Always set to `"error"` for failed requests.

StatusMessage: A human-readable description of what went wrong.

Common Error Types

Authentication Errors: Invalid or missing tokens, wrong passwords

Parameter Errors: Missing required parameters, invalid parameter formats

Device Errors: Device not found, device not connected, device communication issues

File Errors: File not found, file access denied, file format issues

System Errors: Internal server errors, unhandled exceptions

General Error Example

For unhandled or unexpected errors, the API returns a generic error message:

```
{  
  "Request": "endpointName",  
  "Status": "error",  
  "StatusMessage": "An unhandled error occurred during execution. Please  
try again!"  
}
```

Error Handling Best Practices

Always check the Status field: Verify if the request was successful before processing the response.

Handle specific errors: Check the StatusMessage for specific error conditions and handle them appropriately.

Implement retry logic: For transient errors, implement exponential backoff retry mechanisms.

Log error details: Log both the Request and StatusMessage for debugging purposes.

User-friendly messages: Translate technical error messages into user-friendly notifications.

HTTP Status Codes

In addition to the JSON error response, the API may also return appropriate HTTP status codes:

200 OK: Request successful (even if Status is "error" in JSON)

400 Bad Request: Invalid request format or parameters

401 Unauthorized: Authentication required or invalid credentials

403 Forbidden: Valid authentication but insufficient permissions

404 Not Found: Endpoint or resource not found

500 Internal Server Error: Server-side error

WebSocket Configuration

Description:

This configuration is used to set up WebSocket communication. The configuration specifies the intervals at which different types of data are sent automatically. The settings are saved, and on reconnection, SvanLINK will continue to send results according to the configured intervals. The maximum number of simultaneous connections is 20 clients.

The configuration must be sent via WebSocket connection. Default port is **8001**

From version 1.1.0 was introduced such a concept as channels. Channel represents under a name a request (or set of requests) which will be preconfigured and sent automatically according to configured intervals. This allows to listen to different sets of requests by different clients.

Authentication:

When the WebSocket connection is opened, the first step is to authenticate. This can be done by sending a [login](#) request or by sending only the token (as a string) which was generated previously.

Request Format:

Request Body:

To configure the broadcast of data the SvanLINK will accept a list of "Requests". Each item in the list contains a desired type of request (the requests are described below in the documentation) and an interval (ms) at which the data must be sent.

```
{
  "Channel": "main", //Optional, default is "main"
  "Requests": [
    {
      "Request": "getResults",
      "Interval": 1000 // Interval in milliseconds (ms). Minimum interval is 100ms.
    },
    {
      "Request": "getSpectrumResults",
      "Interval": 5000 // Interval in milliseconds (ms). Minimum interval is 100ms.
    }
  ]
}
```

Channel: The name of the channel. Default is `"main"`.

Requests: An array of request objects.

Request: The type of data request. Currently available requests are:

`getFileList` - Get list of files

`getResults` - Get measurement results

`getSpectrumResults` - Get spectrum results

`getStatus` - Get device statuses

`getVersion` - Get version information

`licenseStatus` - Get license status

`sendRawCommand` - Send raw command to device

`startMeasurement` - Start measurement

Interval: The interval in milliseconds (ms) at which the data is sent. Minimum interval is 100ms.

Success Response:

The response indicates that the configuration has been successfully applied, and data will be sent automatically according to the configured intervals.

Response Format:

```
{
  "Channel": "main",
  "Status": "ok",
  "Response": {
    "message": "Configuration applied successfully"
  }
}
```

message: A message indicating that the configuration has been successfully applied.

Channel Management Workflow:

1. Use `getChannelList` to see all available channels
2. Use `subscribeChannel` to subscribe to a channel
3. Use `deleteChannel` to remove unwanted channels
4. Recreate channels by sending WebSocket configuration messages

Securing the connection (optional)

Description:

To secure the connection between the client and the SvanLINK application, you can configure SSL certificates. This will enable encrypted communication, ensuring that data transmitted between the client and the server is secure.

Configuration Steps:

1. Obtain SSL certificates:

You need two files: `cert.pem` (the certificate) and `key.pem` (the private key).

2. Place the certificate and key files in the `certificates` folder within the SvanLINK application directory:

```
mv path/to/cert.pem certificates/  
mv path/to/key.pem certificates/
```

3. On startup, SvanLINK will automatically detect the presence of these files and switch on encryption for communication.

Verification:

Once the certificates are in place, restart the SvanLINK application. You should see a log message indicating that the WebSocket server is starting with SSL:

```
"Starting UI with SSL" or  
"Starting TCP server with SSL" or  
"Starting WebSocket server with SSL"
```

If the certificates are not found, the WebSocket server will start without SSL:

```
"Starting UI without SSL" or  
"Starting TCP server without SSL" or  
"Starting WebSocket server without SSL"
```

Code Examples

```
// JavaScript
async function makeRequest() {
  try {
    // Create the payload
    const payload = {
      Request: "getResults",
      Params: {
        results: ["LAeq", "LCeq"],
        devices: [123456, 654235],
        average: "true"
      },
      token: "userToken"
    };

    // Send the POST request
    const response = await fetch('http://localhost:8000/', {
      method: 'POST',
      headers: { 'Content-Type': 'application/json' },
      body: JSON.stringify(payload)
    });

    // Check if response is OK
    if (!response.ok) {
      throw new Error(`HTTP error! Status: ${response.status}`);
    }

    // Parse and print the JSON response
    const data = await response.json();
    console.log(JSON.stringify(data, null, 2));
  } catch (error) {
    console.error('Error:', error.message);
  }
}

// Execute the request
makeRequest();
```

```

# Python
import requests
import json

def make_request():
    try:
        # Create the payload
        payload = {
            "Request": "getResults",
            "Params": {
                "results": ["LAeq", "LCeq"],
                "devices": [123456, 654235],
                "average": "true"
            },
            "token": "userToken"
        }

        # Send the POST request
        url = "http://localhost:8000/"
        response = requests.post(url, json=payload)

        # Check if response is OK
        response.raise_for_status()

        # Parse and print the JSON response
        print(json.dumps(response.json(), indent=2))
    except requests.exceptions.RequestException as e:
        print(f"Error: {e}")

# Execute the request
make_request()

```

```

# cURL
curl -X POST http://localhost:8000/ \
-H "Content-Type: application/json" \
-d '{
    "Request": "getResults",
    "Params": {
        "results": ["LAeq", "LCeq"],
        "devices": [123456, 654235],
        "average": "true"
    },
    "token": "userToken"
}'

```

```

//Java
import java.net.URI;
import java.net.http.HttpClient;
import java.net.http.HttpRequest;
import java.net.http.HttpResponse;
import com.google.gson.Gson;
import com.google.gson.JsonObject;
import com.google.gson.JsonArray;

public class HttpPostExample {
    public static void main(String[] args) {
        try {
            // Create the JSON payload
            JsonObject payload = new JsonObject();
            payload.addProperty("Request", "getResults");

            JsonObject params = new JsonObject();
            JsonArray results = new JsonArray();
            results.add("LAeq");
            results.add("LCeq");
            params.add("results", results);

            JsonArray devices = new JsonArray();
            devices.add(123456);
            devices.add(654235);
            params.add("devices", devices);

            params.addProperty("average", "true");
            payload.add("Params", params);
            payload.addProperty("token", "userToken");

            // Convert payload to string
            Gson gson = new Gson();
            String jsonPayload = gson.toJson(payload);

            // Create HTTP client
            HttpClient client = HttpClient.newHttpClient();

            // Build the HTTP request
            HttpRequest request = HttpRequest.newBuilder()
                .uri(URI.create("http://localhost:8000/"))
                .header("Content-Type", "application/json")
                .POST(HttpRequest.BodyPublishers.ofString(jsonPayload))
                .build();

            // Send the request and get the response
            HttpResponse response = client.send(request,
            HttpResponse.BodyHandlers.ofString());

            // Parse and print the JSON response
            JsonObject responseJson = gson.fromJson(response.body(),
            JsonObject.class);
            System.out.println(gson.toJson(responseJson));
        }
    }
}

```

```
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

```

// Go
package main

import (
    "bytes"
    "encoding/json"
    "fmt"
    "net/http"
)

func main() {
    // Define the payload structure
    type Params struct {
        Results []string `json:"results"`
        Devices []int    `json:"devices"`
        Average string   `json:"average"`
    }

    type Payload struct {
        Request string `json:"Request"`
        Params  Params `json:"Params"`
        Token   string `json:"token"`
    }

    // Create the payload
    payload := Payload{
        Request: "getResults",
        Params: Params{
            Results: []string{"LAeq", "LCeq"},
            Devices: []int{123456, 654235},
            Average: "true",
        },
        Token: "userToken",
    }

    // Marshal the payload to JSON
    jsonData, err := json.Marshal(payload)
    if err != nil {
        fmt.Println("Error marshaling JSON:", err)
        return
    }

    // Create the HTTP request
    url := "http://localhost:8000/"
    req, err := http.NewRequest("POST", url, bytes.NewBuffer(jsonData))
    if err != nil {
        fmt.Println("Error creating request:", err)
        return
    }
    req.Header.Set("Content-Type", "application/json")

    // Send the request
    client := &http.Client{}

```

```
resp, err := client.Do(req)
if err != nil {
    fmt.Println("Error sending request:", err)
    return
}
defer resp.Body.Close()

// Read and parse the response
var result map[string]interface{}
if err := json.NewDecoder(resp.Body).Decode(&result); err != nil {
    fmt.Println("Error decoding response:", err)
    return
}

// Pretty print the JSON response
resultJSON, err := json.MarshalIndent(result, "", " ")
if err != nil {
    fmt.Println("Error formatting response:", err)
    return
}
fmt.Println(string(resultJSON))
}
```

API Documentation - SvanLINK v1.1.0

login

Description:

The `login` API is used to authenticate a user by providing a password. If the password is correct, the user is granted access to the system and receives a token.

Request Format:

Request Body:

```
{  
  "Request": "login",  
  "Params": {  
    "password": "Svantek312"  
  }  
}
```

Request: The type of request, which is `"login"` in this case.

Params: An object containing the parameters for the request.

password: The password for authentication.

Success Response:

If the password is correct, the response will indicate a successful login and provide a token.

Response Format:

```
{
  "Request": "login",
  "Status": "ok",
  "Response": {
    "token": "userToken",
    "message": "Login successful"
  }
}
```

Request: Reflects back the original request type (`"login"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An object containing the response data.

token: The token provided upon successful login. **It must be supplied into any other request described below.**

message: A message indicating that the login was successful.

Error Response:

If the password is incorrect, the response will indicate an error.

Response Format:

```
{
  "Request": "login",
  "Status": "error",
  "StatusMessage": "Wrong password"
}
```

Request: Reflects back the original request type (`"login"`).

Status: The status of the request (`"error"` for failed requests).

StatusMessage: A message indicating the reason for the error (e.g., `"Wrong password"`).

Note. It is highly recommended to change it to keep your data and settings safe. Use [setNewPassword](#) request to do this.

logout

Description:

The `logout` API is used to log out a user by invalidating the provided token. This will end the user's session.

Request Format:

Request Body:

```
{
  "Request": "logout",
  "token": "userToken"
}
```

Request: The type of request, which is `"logout"` in this case.

Params: An object containing the parameters for the request.

token: The token for the user session to be invalidated.

Success Response:

If the token is valid, the response will indicate a successful logout.

Response Format:

```
{
  "Request": "logout",
  "Status": "ok",
  "Response": {
    "message": "Logout successful"
  }
}
```

Request: Reflects back the original request type (`"logout"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An object containing the response data.

message: A message indicating that the logout was successful.

Error Response:

If the token is invalid, the response will indicate an error.

Response Format:

```
{  
  "Request": "logout",  
  "Status": "error",  
  "StatusMessage": "Invalid token"  
}
```

Request: Reflects back the original request type (`"logout"`).

Status: The status of the request (`"error"` for failed requests).

StatusMessage: A message indicating the reason for the error (e.g., `"Invalid token"`).

setNewPassword

Description:

The `setNewPassword` API allows an authenticated user to change their password. The user must provide their current password and enter the new password twice for confirmation. The new password must be at least 8 characters long and contain at least one uppercase letter, one lowercase letter.

Request Format:

Request Body:

```
{
  "Request": "setNewPassword",
  "Params": {
    "oldPassword": "currentPassword",           // The current password.
    "newPassword": "newPassword",                // The new password.
    "newPassword2": "newPassword"                // Repeat of the new password for
confirmation.
  },
  "token": "userToken"
}
```

`oldPassword` (required): The user's current password.

`newPassword` (required): The new password to set.

`newPassword2` (required): The new password repeated for confirmation. Must match `newPassword`.

`token` (required): Authentication token for the session.

Success Response:

If the password is changed successfully, the response will indicate success.

Response Format:

```
{
  "Request": "setNewPassword",
  "Status": "ok",
  "Response": {
    "message": "Password changed successfully"
  }
}
```

Request: Reflects back the original request type (`"setNewPassword"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An object containing the result message.

Error Responses:

If the request fails, an error response is returned.

Incorrect Password:

```
{
  "Request": "setNewPassword",
  "Status": "error",
  "StatusMessage": "Incorrect password"
}
```

StatusMessage: A message describing the reason for the error (e.g., incorrect old password, new passwords do not match, etc.).

Note. To reset the password to default it is needed to remove the `password` file with the same name.

On Linux systems it is located in the SvanLINK's folder.

On Windows it is located in

`C:\Users\YourUserName\AppData\Local\Svantek\SvanLINK\`

licenseStatus

Description:

The `licenseStatus` API retrieves the current license status of the device. The response includes the status of the license, the license end date, the device ID, and a message regarding the license status.

Request Format:

Request Body:

```
{
  "Request": "licenseStatus",
  "token": "userToken"
}
```

Success Response:

The response contains the current license status of the device.

Response Format:

```
{
  "Request": "licenseStatus",
  "Status": "ok",
  "Response": {
    "licenseStatus": "active",
    "deviceId": "XXXXXXXXXXXXXX",
    "licenseMessage": "The license is active"
  }
}
```

`licenseStatus`: The current status of the license (active, expired, noLicense, error).

`deviceId`: The ID of the device.

`licenseMessage`: A message regarding the license status.

setLicense

Description:

The `setLicense` API activates a new license key for the device. You can provide the license key encoded in a Base64 string, and the API will activate it for the device.

Important note. There are 2 types of licenses: hardware and device. "Hardware licence" attaches the app to the current hardware configuration (PC, laptop, server, Raspberry Pi etc) on which the app is running. The "device license" is attached to Svantek device. During its activation the Svantek device must be connected to the hardware (PC, laptop, server, Raspberry Pi etc), otherwise an error will be returned.

Request Format:

Request Body:

```
{
  "Request": "setLicense",
  "Params": {
    "key": "License key file encoded in Base64" // License key encoded in
Base64
  },
  "token": "userToken"
}
```

key: The license key encoded in a Base64 string.

Success Response:

The response indicates whether the license key was successfully activated for the device.

Response Format:

```
{  
  "Request": "setLicense",  
  "Status": "ok",  
  "Response": {  
    "licenseStatus": "active",  
    "deviceId": "1424422045401",  
    "licenseMessage": "The license was activated successfully"  
  }  
}
```

licenseStatus: The current status of the license (e.g., "active").

deviceId: The ID of the device.

licenseMessage: A message regarding the license status.

getStatus

Description:

The `getStatus` API retrieves the status of specified devices. You can request specific device serial numbers, and the API will return the corresponding status data in the response.

Request Format:

Request Body:

```
{  
  "Request": "getStatus",  
  "Params": {  
    "devices": [113200, 223200] // Optional: List of device serial numbers.  
  },  
  "token": "userToken"  
}
```

`devices` (optional): A list of device serial numbers. If not provided, status data for all available devices will be returned.

Success Response:

The response contains the status data for each requested device.

Response Format:

```
{
  "Request": "getStatus",
  "Status": "ok",
  "Response": [
    {
      "serial": 113200,
      "type": "SV 303",
      "deviceName": "Demo_1",
      "firmware": "1.03.9",
      "battery": 90,
      "memorySize": 16874,
      "memoryFree": 30,
      "deviceWarning": [
        "Message 1 from device",
        "Message 2 from device"
      ],
      "measurementStatus": "start",
      "measurementType": "1/3 Octave",
      "intPeriod": 30
    },
    {
      "serial": 223200,
      "type": "SV 303",
      "deviceName": "Demo_2",
      "firmware": "1.03.7",
      "battery": 33,
      "memorySize": 65535,
      "memoryFree": 54,
      "deviceWarning": [
        "Message 1 from device",
        "Message 2 from device"
      ],
      "measurementStatus": "stop",
      "measurementType": "1/1 Octave",
      "intPeriod": 0
    }
  ]
}
```

Response Fields:

Request: Reflects back the original request type (`"getStatus"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An array of objects containing status data for the requested devices.

- serial**: The serial number of the device.
- Device Object:**
- type**: The type of the device (e.g., "SV 303").
- deviceName**: The name of the device.
- firmware**: The firmware version of the device.
- battery**: The battery level of the device (percentage).
- memorySize**: The total memory size of the device (MB).
- memoryFree**: The free memory of the device (percentage).
- deviceWarning**: An array of warning messages from the device.
- measurementStatus**: The measurement status of the device (e.g., "start", "stop").
- measurementType**: The type of measurement being performed (e.g., "1/3 Octave", "1/1 Octave").
- intPeriod**: The integration period for the measurement (seconds, 0 for infinity).

getResults

Description:

The `getResults` API retrieves measurement results for specified devices. You can request specific result types and device serial numbers, and the API will return the corresponding data in the response.

Request Format:

Request Body:

```
{
  "Request": "getResults",
  "Params": {
    "results": ["LAeq", "LCeq"],           // Optional: List of result types to
    fetch.
    "devices": [123456, 654235],         // Optional: List of device serial
    numbers.
    "average": "true",                  // Required: Whether to return
    averaged results.
    "vibrationsDB": false              // Optional: Whether to show
    vibrations in dB instead of mm/s or m/s2.
  },
  "token": "userToken"
}
```

`results` (optional): A list of result types to retrieve. Examples include:

`"LAeq"`: Equivalent continuous sound level A-weighted.

`"LCeq"`: Equivalent continuous sound level C-weighted.

If omitted, all available result types will be returned.

`devices` (optional): A list of device serial numbers. If not provided, data for all available devices will be returned.

`average` (required): A boolean value (`"true"` or `"false"`) indicating whether to return averaged results.

`vibrationsDB` (optional): A boolean value indicating whether to show vibrations in dB instead of mm/s or m/s². Defaults to `false`.

token (required): Authentication token for the session.

Success Response:

The response contains the requested measurement data for each device.

Response Format:

```
{  
    "Request": "getResults",  
    "Status": "ok",  
    "Response": [  
        {  
            "serial": 123456,  
            "type": "SV 303",  
            "result": [  
                {  
                    "name": "LAeq",  
                    "value": 100.0,  
                    "unit": "dB"  
                },  
                {  
                    "name": "LCeq",  
                    "value": 112.1,  
                    "unit": "dB"  
                }  
            ]  
        },  
        {  
            "serial": 654235,  
            "type": "SV 303",  
            "result": [  
                {  
                    "name": "LAeq",  
                    "value": 98.2,  
                    "unit": "dB"  
                },  
                {  
                    "name": "LCeq",  
                    "value": 88.8,  
                    "unit": "dB"  
                }  
            ]  
        }  
    ]  
}
```

Response Fields:

Request: Reflects back the original request type (`"getResults"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An array of objects containing measurement data for the requested devices.

serial: The serial number of the device.

Device Object:

type: The type of the device (e.g., `"303"`).

result: An array containing the results for the device.

name: The type of result (e.g., `"LAeq"`, `"LCeq"`).

value: The measured value for the result.

unit: The unit of the result (e.g., `"dB"` for decibels).

Error Responses:

Missing Parameters:

```
{
  "Request": "getResults",
  "Status": "error",
  "Error": "Missing required parameters"
}
```

Invalid Parameter Format:

```
{
  "Request": "getResults",
  "Status": "error",
  "Error": "Invalid parameter format"
}
```

Notes:

If neither `results` nor `devices` are provided, the API will return all available data for all devices.

The `average` parameter is mandatory and determines whether the results should be averaged across measurements.

getSpectrumResults

Description:

The `getSpectrumResults` API retrieves spectrum results for specified devices. You can request specific spectrum types and device serial numbers, and the API will return the corresponding data in the response.

Request Format:

Request Body:

```
{
  "Request": "getSpectrumResults",
  "Params": {
    "devices": [123456, 654235],           // Optional: List of device
    serial numbers.
    "vibrationsDB": false                // Optional: Whether to show
    vibrations in dB instead of mm/s or m/s2.
  },
  "token": "userToken"
}
```

`devices` (optional): A list of device serial numbers. If not provided, data for all available devices will be returned.

`vibrationsDB` (optional): A boolean value indicating whether to show vibrations in dB instead of mm/s or m/s². Defaults to `false`.

`token` (required): Authentication token for the session.

Success Response:

The response contains the requested spectrum data for each device.

Response Format:

```
{
  "Request": "getSpectrumResults",
  "Status": "ok",
  "Response": [
    {
      "serial": 123456,
      "type": "SV 303",
      "status": "ok",
      "measurement": "start",
      "resultLabel": "LZeq",
      "resultType": "1/1 Octave",
      "measurementMode": "sound",
      "results": [
        {"name": "31.5", "value": 59.55, "unit": "dB"},
        {"name": "63", "value": 47.22, "unit": "dB"},
        {"name": "125", "value": 41.01, "unit": "dB"},
        {"name": "250", "value": 41.21, "unit": "dB"},
        {"name": "500", "value": 38.36, "unit": "dB"},
        {"name": "1.0k", "value": 38.69, "unit": "dB"},
        {"name": "2.0k", "value": 40.36, "unit": "dB"},
        {"name": "4.0k", "value": 35.02, "unit": "dB"},
        {"name": "8.0k", "value": 30.13, "unit": "dB"},
        {"name": "16k", "value": 32.06, "unit": "dB"},
        {"name": "A", "value": 44.92, "unit": "dB"},
        {"name": "C", "value": 61.96, "unit": "dB"},
        {"name": "Z", "value": 72.56, "unit": "dB"}
      ]
    },
    {
      "serial": 654235,
      "type": "SV 303",
      "status": "ok",
      "measurement": "start",
      "resultLabel": "LZeq",
      "resultType": "1/1 Octave",
      "measurementMode": "sound",
      "results": [
        {"name": "31.5", "value": 60.11, "unit": "dB"},
        {"name": "63", "value": 44.22, "unit": "dB"},
        {"name": "125", "value": 32.01, "unit": "dB"},
        {"name": "250", "value": 41.23, "unit": "dB"},
        {"name": "500", "value": 38.54, "unit": "dB"},
        {"name": "1.0k", "value": 38.69, "unit": "dB"},
        {"name": "2.0k", "value": 40.36, "unit": "dB"},
        {"name": "4.0k", "value": 35.34, "unit": "dB"},
        {"name": "8.0k", "value": 35.13, "unit": "dB"},
        {"name": "16k", "value": 32.23, "unit": "dB"},
        {"name": "A", "value": 44.92, "unit": "dB"},
        {"name": "C", "value": 61.96, "unit": "dB"},
        {"name": "Z", "value": 66.56, "unit": "dB"}
      ]
    }
  ]
}
```

```

        }
    ]
}
```

Response Fields:

Request: Reflects back the original request type (`"getSpectrumResults"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An array of objects containing spectrum data for the requested devices.

serial: The serial number of the device.

Device Object:

type: The type of the device (e.g., `"303"`).

status: "ok" if no error detected.

measurement: The measurement status of the device (e.g., `"start"`, `"stop"`).

resultLabel: The label of the spectrum result.

resultType: The type of spectrum result (e.g., `"1/1 Octave"`, `"1/3 Octave"`).

measurementMode: The mode of measurement `"sound|vibrations"`.

results: An array containing the spectrum data for the device.

name: The type of frequency.

data: The spectrum data array.

unit: The unit of the result (e.g., `"dB"` for decibels).

Error Responses:

Missing Parameters:

```
{
  "Request": "getSpectrumResults",
  "Status": "error",
  "Error": "Missing required parameters"
}
```

Invalid Parameter Format:

```
{
  "Request": "getSpectrumResults",
  "Status": "error",
  "Error": "Invalid parameter format"
}
```

Notes:

If neither `spectrumTypes` nor `devices` are provided, the API will return all available spectrum data for all devices.

startMeasurement

Description:

The `startMeasurement` API starts measurements for specified devices. You can request specific measurement types and device serial numbers, and the API will start the corresponding measurements.

Request Format:

Request Body:

```
{
  "Request": "startMeasurement",
  "Params": {
    "devices": [123456, 654235]           // Optional: List of device
                                             serial numbers.
  },
  "token": "userToken"
}
```

`devices` (optional): A list of device serial numbers. If not provided, measurements for all available devices will be started.

Success Response:

The response confirms that the requested measurements have been started for each device.

Response Format:

```
{  
  "Request": "startMeasurement",  
  "Status": "ok"  
}
```

Response Fields:

Request: Reflects back the original request type (`"startMeasurement"`).

Status: The status of the request (`"ok"` for successful requests).

Notes:

If neither `measurementTypes` nor `devices` are provided, the API will start all available measurements for all devices.

stopMeasurement

Description:

The `stopMeasurement` API stops measurements for specified devices. You can request specific measurement types and device serial numbers, and the API will stop the corresponding measurements.

Request Format:

Request Body:

```
{
  "Request": "stopMeasurement",
  "Params": {
    "devices": [123456, 654235]           // Optional: List of device
    serial numbers.
  },
  "token": "userToken"
}
```

devices (optional): A list of device serial numbers. If not provided, measurements for all available devices will be stopped.

Success Response:

The response confirms that the requested measurements have been stopped for each device.

Response Format:

```
{
  "Request": "stopMeasurement",
  "Status": "ok",
}
```

Response Fields:

Request: Reflects back the original request type (`"stopMeasurement"`).

Status: The status of the request (`"ok"` for successful requests).

Notes:

If neither `measurementTypes` nor `devices` are provided, the API will stop all available measurements for all devices.

getConfig

Description:

The `getConfig` API retrieves the current configuration for specified devices. You can request specific configuration parameters and device serial numbers, and the API will return the corresponding configuration data in the response.

Request Format:

Request Body:

```
{  
  "Request": "getConfig",  
  "token": "userToken"  
}
```

Success Response:

The response contains the requested configuration data for each device.

Response Format:

```
{
  "Request": "getConfig",
  "Status": "ok",
  "Response": {
    "app": {
      "tcpPort": 8000,
      "echo": true,
      "wsEnabled": false,
      "wsPort": 8001
    },
    "ui": {
      "liveView": {
        "resultTypes": "LAF;LAeq;LCpeak",
        "currentTab": "liveResultsTab"
      },
      "thresholdView": {
        "thresholdOrange": 45,
        "thresholdRed": 75,
        "k": 0,
        "resultType": "LAF"
      }
    }
  }
}
```

Response Fields:

Request: Reflects back the original request type (`"getConfig"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An object containing configuration data for the requested devices.

app: An object containing application configuration.

tcpPort: The TCP port number (e.g., `8000`).

Response Object:

echo: A boolean indicating if echo is enabled (e.g., `true`). If it is enabled, the server will echo back the request in `"Echo"` parameter.

wsEnabled: A boolean indicating if WebSocket is enabled (e.g., `false`).

wsPort: The WebSocket port number (e.g., `8001`).

ui: An object containing UI configuration.

LiveView: An object containing live view configuration.

resultTypes: A semicolon-separated string of result types (e.g.,
"LAF; LAeq; LCpeak").

currentTab: The current tab in the live view (e.g., "liveResultsTab").

thresholdView: An object containing threshold view configuration.

thresholdOrange: The orange threshold value (e.g., 45).

thresholdRed: The red threshold value (e.g., 75).

k: The k is the coefficient which is added to live (e.g., 0).

resultType: The result type for the threshold view (e.g., "LAF").

setConfig

Description:

The `setConfig` API sets the configuration for specified devices. You can provide specific configuration parameters and device serial numbers, and the API will update the corresponding configuration data.

Request Format:

Request Body:

```
{
  "Request": "setConfig",
  "Params": {
    "app": {
      "tcpPort": 8000,
      "echo": true,
      "wsEnabled": false,
      "wsPort": 8001
    },
    "ui": { // Optional: List of result types to fetch.
      "liveView": {
        "resultTypes": "LAF;LAeq;LCpeak",
        "currentTab": "liveResultsTab"
      },
      "thresholdView": {
        "thresholdOrange": 45,
        "thresholdRed": 75,
        "k": 0,
        "resultType": "LAF"
      }
    }
  },
  "token": "userToken"
}
```

`app` (required): An object containing application configuration.

`tcpPort`: The TCP port number (e.g., `8000`).

`echo`: A boolean indicating if echo is enabled (e.g., `true`). If it is enabled, the server will echo back the request in `"Echo"` parameter.

`wsEnabled`: A boolean indicating if WebSocket is enabled (e.g., `false`).

wsPort: The WebSocket port number (e.g., `8001`).

ui (optional): An object containing UI configuration.

liveView: An object containing live view configuration.

resultTypes: A semicolon-separated string of result types (e.g.,
`"LAF;LAeq;LCpeak"`).

currentTab: The current tab in the live view (e.g., `"liveResultsTab"`).

thresholdView: An object containing threshold view configuration.

thresholdOrange: The orange threshold value (e.g., `45`).

thresholdRed: The red threshold value (e.g., `75`).

k: The k value (e.g., `0`).

resultType: The result type for the threshold view (e.g., `"LAF"`).

Success Response:

The response confirms that the configuration has been set for each device.

Response Format:

```
{
  "Request": "setConfig",
  "Status": "ok"
}
```

Response Fields:

Request: Reflects back the original request type (`"setConfig"`).

Status: The status of the request (`"ok"` for successful requests).

getSetup

Description:

The `getSetup` API retrieves the setup configuration for a specified device. You can request the setup configuration for a specific device serial number, and the API will return the corresponding setup data in the response.

Request Format:

Request Body:

```
{
  "Request": "getSetup",
  "Params": {
    "device": 85609 // Device serial number
  },
  "token": "userToken"
}
```

`device`: The serial number of the device for which the setup configuration is requested.

Success Response:

The response contains the setup configuration data for the requested device.

Response Format:

```
{
  "Request": "getSetup",
  "Status": "ok",
  "Response": {
    "setupfile": "file encoded in Base64 string format"
  }
}
```

`setupfile`: The setup configuration file encoded in a Base64 string format.

setSetup

Description:

The `setSetup` API uploads a setup configuration to a specified device. You can provide the setup configuration file encoded in a Base64 string, and the API will upload it to the specified device.

Request Format:

Request Body:

```
{  
  "Request": "setSetup",  
  "Params": {  
    "device": 85609, // Device serial number  
    "overwrite": true, // Whether to overwrite the existing setup  
    "file": "file encoded in Base64 string" // Setup configuration file  
    encoded in Base64  
  },  
  "token": "userToken"  
}
```

`device`: The serial number of the device to which the setup configuration is uploaded.

`overwrite`: A boolean indicating whether to overwrite the existing setup.

`file`: The setup configuration file encoded in a Base64 string.

Success Response:

The response indicates whether the setup configuration was successfully uploaded to the device.

Response Format:

```
{  
  "Request": "setSetup",  
  "Status": "ok"  
}
```

message : A message indicating the result of the setup upload.

copySetup

Description:

The `copySetup` API copies a setup configuration from a source device to one or more target devices. You can specify the source device, target devices, and whether to overwrite the existing setup on the target devices.

Request Format:

Request Body:

```
{
  "Request": "copySetup",
  "Params": {
    "sourceDevice": 85609, // Source device serial number
    "targetDevices": [112233, 453789], // List of target device serial numbers
    "overwrite": true // Whether to overwrite the existing setup on the target devices
  },
  "token": "userToken"
}
```

sourceDevice: The serial number of the source device from which the setup configuration is copied.

targetDevices: A list of serial numbers of the target devices to which the setup configuration is copied.

overwrite: A boolean indicating whether to overwrite the existing setup on the target devices.

Success Response:

The response indicates whether the setup configuration was successfully copied to the target devices.

Response Format:

```
{  
  "Request": "copySetup",  
  "Status": "ok"  
}
```

message : A message indicating the result of the setup copy operation.

sendRawCommand

Description:

The `sendRawCommand` API allows you to send # commands directly to the connected device. These commands must follow the format and syntax specified in the device's user manual. The API sends the command to the device and returns the response.

Request Format:

Request Body:

```
{  
  "Request": "sendRawCommand",  
  "Params": {  
    "devices": [123456, 654235],      // Optional: List of device serial  
    numbers.  
    "command": "#1,U?,N?;"           // The raw command to send to the  
    device  
    },  
    "token": "userToken"  
}
```

command : The raw command string to be sent to the device. This must follow the syntax specified in the device's user manual.

token : The authentication token for the session.

Success Response:

The response contains the result of the command execution on the device.

Response Format:

```
{  
  "Request": "sendRawCommand",  
  "Status": "ok",  
  "Response": [  
    {  
      "serial": 123456,  
      "response": "#1,U303,N123456;"  
    },  
    {  
      "serial": 654235,  
      "response": "#1,U303,N654235;"  
    }  
  ]  
}
```

result: A message indicating the result of the command execution.

Notes:

Ensure that the **command** parameter follows the syntax and format specified in the device's user manual.

The **token** parameter is mandatory and must be valid for the session.

Use this API with caution, as sending incorrect commands may result in unexpected behavior or errors on the device.

getFileList

Description:

The `getFileList` API retrieves a list of files stored on devices. All parameters in `Params` are optional and act as filters. If a parameter is omitted, no filtering is applied for that field.

Request Format:

Request Body:

```
{
  "Request": "getFileList",
  "Params": {
    "devices": [3502], // Optional: List of device
    serial numbers to filter.
    "mode": "flat", // Optional: "flat" for a flat
    list, "tree" for hierarchical (default: "flat").
    "types": ["TXT", "SVL"], // Optional: List of file
    types/extensions to filter.
    "startDate": "2025-05-13 10:30:00", // Optional: Start date/time
    (YYYY-MM-DD HH:mm:ss) to filter files created after this date.
    "endDate": "2025-5-13 11:00:00" // Optional: End date/time (YYYY-
    MM-DD HH:mm:ss) to filter files created before this date.
  },
  "token": "userToken"
}
```

`devices` (optional): List of device serial numbers. Only files from these devices will be listed.

`mode` (optional): `"flat"` for a flat file list, `"tree"` for a directory tree. Default is `"flat"`.

`types` (optional): List of file types/extensions to include (e.g., `"TXT"`, `"SVL"`).

`startDate` (optional): Only include files created after this date/time.

`endDate` (optional): Only include files created before this date/time.

`token` (required): Authentication token.

Success Response:

The response contains a list of files for each device matching the filters, including file name, size, creation date, and type.

Response Format:

```
{
  "Request": "getFileList",
  "Status": "ok",
  "Response": [
    {
      "serial": 123456,
      "type": "SV 303",
      "files": [
        {
          "name": "/S1.SVL",
          "size": 1203,
          "dateCreated": "2025-05-13 10:50:40",
          "type": "TXT"
        },
        {
          "name": "/W1.WAV",
          "size": 270336,
          "dateCreated": "2025-05-13 10:52:28",
          "type": "SVL"
        }
      ]
    },
    ...
  ]
}
```

Response Fields:

Request: Reflects back the original request type (`"getFileList"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An array of objects, one per device, each containing:

serial: Device serial number.

type: Device type/model.

files: Array of file objects:

name: Full file path/name.

size: File size in bytes.

dateCreated: File creation date/time (YYYY-MM-DD HH:mm:ss).

type: File type/extension (e.g., **"TXT"**, **"SVL"**).

Notes:

All **Params** fields are optional and act as filters. If omitted, no filtering is applied for the request.

If **types** is omitted, all file types are included.

The **mode** parameter controls whether the file list is flat or hierarchical.

downloadFile

Description:

The `downloadFile` API allows you to download a specific file from a device. The response is a stream of bytes representing the file content.

Request Format:

Request Body:

```
{
  "Request": "downloadFile",
  "Params": {
    "device": 123456,                                // Required: Device serial number.
    "mode": "byPath|current",                         // Required: Mode for file download.
    "value": "/S1.SVL|SVL"                           // Required: Depending on mode, either file
path or file type.
  },
  "token": "userToken"
}
```

device (required): The serial number or identifier of the device.

mode (required): Mode for file download. Use `"byPath"` to specify the file path, or `"current"` to download the current file.

value (required): Depending on the mode:

`"byPath"`: Full file path (e.g., `"/S1.SVL"`).

`"current"`: File type (e.g., `"SVL"`, `"WAV"`).

token (required): Authentication token.

Response:

The response is a stream of bytes representing the requested file. The content type and headers are set for file download.

The file is returned as a binary stream (not JSON).

Appropriate headers (e.g., `Content-Disposition`, `Content-Type`) are set for file download.

Notes:

Use this endpoint to download a single file from the specified device.

Make sure to handle the response as a file/binary stream in your client.

downloadFiles

Description:

The `downloadFiles` API allows you to download multiple files from a device in a single request. The response is a stream of bytes, as a ZIP archive containing the requested files.

Request Format:

Request Body:

```
{
  "Request": "downloadFiles",
  "Params": {
    "device": 123456, // Required: Device serial number or identifier.
    "files": [
      "path/file001.svl",
      "path/file002.wav"
    ], // Required: List of file paths to download.
    "omit": true // Optional: Whether to omit files that do not exist on the device.
  },
  "token": "userToken"
}
```

`device` (required): The serial number or identifier of the device.

`files` (required): List of file paths to download from the device.

`token` (required): Authentication token.

`omit` (optional): If set to `true`, files that do not exist on the device will be omitted in the archive received in responses, otherwise error will be returned. Default is `false`.

Response:

The response is a stream of bytes representing the requested files, typically as a ZIP archive.

The files are returned as a binary stream (not JSON).

Appropriate headers (e.g., `Content-Disposition`, `Content-Type: application/zip`) are set for file download.

Notes:

Use this endpoint to download multiple files from the specified device in a single request.

Make sure to handle the response as a file/binary stream in your client.

deleteFile

Description:

The `deleteFile` API allows you to delete a specific file from a device. The request must specify the device serial number and the full path to the file to be deleted.

Request Format:

Request Body:

```
{
  "Request": "deleteFile",
  "Params": {
    "device": 113200, // Required: Device serial number.
    "path": "/L4.SVL" // Required: Full file path to delete.
  },
  "token": "userToken"
}
```

`device` (required): The serial number of the device.

`path` (required): The full path to the file to be deleted on the device.

`token` (required): Authentication token.

Success Response:

The response indicates whether the file was successfully deleted from the device.

Response Format:

```
{
  "Request": "deleteFile",
  "Status": "ok",
  "Response": {
    "message": "File deleted successfully"
  }
}
```

Request: Reflects back the original request type (`"deleteFile"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An object containing a message about the result.

Notes:

Use this endpoint to delete a single file from the specified device.

If the file does not exist, an error message will be returned in the response.

Deleting files is irreversible. Use with caution.

getVersion

Description:

The `getVersion` API retrieves the current version of the SvanLINK application. This is useful for checking which version of the software is running on the server.

Request Format:

Request Body:

```
{
  "Request": "getVersion",
  "token": "userToken"
}
```

Request: The type of request, which is `"getVersion"` in this case.

token: (required) Authentication token for the session.

Response:

The response contains the current version of the SvanLINK application.

Response Format:

```
{
  "Request": "getVersion",
  "Status": "ok",
  "Response": {
    "version": "1.1.0"
  }
}
```

Request: Reflects back the original request type (`"getVersion"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An object containing the version string.

checkUpdate

Description:

The `checkUpdate` API checks if a new version of the SvanLINK application is available. It returns information about the latest version, its release date, and changelog.

Request Format:

Request Body:

```
{  
  "Request": "checkUpdate",  
  "token": "userToken"  
}
```

Request : The type of request, which is `"checkUpdate"` in this case.

token : (required) Authentication token for the session.

Success Response:

The response indicates whether an update is available and provides details about the latest version.

Response Format:

```
{  
  "Request": "checkUpdate",  
  "Status": "ok",  
  "Response": {  
    "available": true,  
    "critical": false,  
    "version": "1.0.0",  
    "date": "2025-05-01",  
    "changelog": "- Added new features\n- Fixed bugs\n- Improved  
    performance"  
  }  
}
```

available: `true` if a newer version is available, `false` otherwise.

critical: `true` if the update is critical, `false` otherwise.

version: The latest available version.

date: Release date of the latest version (YYYY-MM-DD).

changelog: Description of changes in the latest version.

Error Response:

```
{  
  "Request": "checkUpdate",  
  "Status": "error",  
  "StatusMessage": "Unable to check for updates"  
}
```

StatusMessage: A message describing the reason for the error (e.g., network issues, authentication failure).

Notes:

This endpoint is used to inform users if a new version of SvanLINK is available for download.

Requires a valid authentication token.

downloadUpdate

Description:

The `downloadUpdate` API downloads the latest available update for the SvanLINK application. It initiates the download process or returns the current status if already in progress or completed.

Request Format:

Request Body:

```
{
  "Request": "downloadUpdate",
  "token": "userToken"
}
```

Request : The type of request, which is `"downloadUpdate"` in this case.

token : (required) Authentication token for the session.

Success Response:

The response indicates the status of the update download process.

Response Format:

```
{
  "Request": "downloadUpdate",
  "Status": "ok",
  "Response": {
    "status": "downloaded|downloading"
  }
}
```

status : `"downloaded"` if the update has been downloaded, `"downloading"` if the download is in progress.

Error Response:

```
{  
  "Request": "downloadUpdate",  
  "Status": "error",  
  "StatusMessage": "Unable to download update"  
}
```

StatusMessage: A message describing the reason for the error (e.g., network issues, authentication failure).

Notes:

This endpoint is used to download the latest update for SvanLINK.

Requires a valid authentication token.

After a successful download, use **installUpdate** to install the update.

installUpdate

Description:

The `installUpdate` API installs the latest downloaded update for the SvanLINK application. It starts the update process and may require elevated privileges depending on the operating system.

Request Format:

Request Body:

```
{  
  "Request": "installUpdate",  
  "token": "userToken"  
}
```

Request : The type of request, which is `"installUpdate"` in this case.

token : (required) Authentication token for the session.

Success Response:

The response indicates that the update process has started.

Response Format:

```
{  
  "Request": "installUpdate",  
  "Status": "ok",  
  "Response": {  
    "status": "updating"  
  }  
}
```

status : `"updating"` means the update process has started successfully.

Error Response:

```
{  
  "Request": "installUpdate",  
  "Status": "error",  
  "StatusMessage": "Error message"  
}
```

StatusMessage: A message describing the reason for the error (e.g., missing updater file, permission issues).

Notes:

This endpoint requires that the update has already been downloaded using [downloadUpdate](#).

Requires a valid authentication token.

The update process may restart or stop the application.

subscribeChannel

Description:

The `subscribeChannel` API allows a WebSocket client to subscribe to a specific channel for receiving real-time data. This request can only be sent via WebSocket connection and enables the client to receive periodic updates from the specified channel.

Note: This request is WebSocket-only and cannot be sent via HTTP/TCP connections.

Request Format:

Request Body:

```
{  
  "Request": "subscribeChannel",  
  "Params": {  
    "channel": "main"  
  }  
}
```

Request: The type of request, which is `"subscribeChannel"` in this case.

Params: An object containing the parameters for the request.

channel (required): The name of the channel to subscribe to. If the specified channel doesn't exist, the client will be automatically subscribed to the `"main"` channel.

Success Response:

If the subscription is successful, the response will indicate that the client has been subscribed to the specified channel.

Response Format:

```
{
  "Request": "subscribeChannel",
  "Status": "ok",
  "Response": {
    "message": "Subscribed to channel successfully"
  }
}
```

Request: Reflects back the original request type (`"subscribeChannel"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An object containing the response data.

message: A message indicating that the subscription was successful.

Error Responses:

No Channel Specified:

```
{
  "Request": "subscribeChannel",
  "Status": "error",
  "StatusMessage": "The \"channel\" parameter is missing"
}
```

Channel Doesn't Exist:

```
{
  "Request": "subscribeChannel",
  "Status": "error",
  "StatusMessage": "The channel doesn't exist. Subscribing to the 'main' channel."
}
```

Notes:

This request can only be sent via WebSocket connection (port `8001` by default).

Authentication is required before subscribing to channels. Send a [Login](#) request or provide a valid token first.

If the specified channel doesn't exist, the client will be automatically subscribed to the `"main"` channel.

Subscribing to a new channel will automatically unsubscribe the client from all other channels.

Once subscribed, the client will receive periodic updates according to the channel's configuration.

Available channels can be retrieved using the [getChannelList](#) request.

getChannelList

Description:

The `getChannelList` API retrieves a list of all available WebSocket channels and their configurations. This request can only be sent via WebSocket connection and returns information about all configured channels, including their associated requests and intervals.

Note: This request is WebSocket-only and cannot be sent via HTTP/TCP connections.

Request Format:

Request Body:

```
{  
  "Request": "getChannelList"  
}
```

Request: The type of request, which is `"getChannelList"` in this case.

Success Response:

The response contains all configured WebSocket channels and their associated request configurations.

Response Format:

```
{
  "Request": "getChannelList",
  "Status": "ok",
  "Response": {
    "main": {
      "Requests": [
        {
          "Request": "getResults",
          "Interval": 1000
        },
        {
          "Request": "getSpectrumResults",
          "Interval": 1000
        }
      ]
    },
    "API2": {
      "Requests": [
        {
          "Request": "getStatus",
          "Interval": 1000
        },
        {
          "Request": "getSpectrumResults",
          "Interval": 1650
        }
      ]
    }
  }
}
```

Response Fields:

Request: Reflects back the original request type (`"getChannelList"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An object containing all configured channels.

[channel_name]: Each channel is represented by its name as a key.

Requests: An array of request objects configured for this channel.

Request: The type of request (e.g., `"getResults"`, `"getSpectrumResults"`).

Interval: The interval in milliseconds (ms) at which the request is sent.

Notes:

This request can only be sent via WebSocket connection (port `8001` by default).

Authentication is required before retrieving the channel list. Send a [login](#) request or provide a valid token first.

The response includes all channels that have been configured, including the default `"main"` channel.

Each channel contains a list of requests that are automatically sent at the specified intervals.

If no channels are configured, the response will be an empty object `{}`.

Use this request to discover available channels before subscribing to them with [subscribeChannel](#).

This configuration creates a new channel or updates an existing one with the specified requests and intervals.

deleteChannel

Description:

The `deleteChannel` API allows a WebSocket client to delete a specific channel and its associated configuration. This request can only be sent via WebSocket connection and permanently removes the channel from the system, including all its configured requests and intervals.

Note: This request is WebSocket-only and cannot be sent via HTTP/TCP connections.

Request Format:

Request Body:

```
{  
  "Request": "deleteChannel",  
  "Params": {  
    "channel": "main"  
  }  
}
```

Request: The type of request, which is `"deleteChannel"` in this case.

Params: An object containing the parameters for the request.

channel (required): The name of the channel to delete.

Success Response:

If the channel is successfully deleted, the response will indicate that the channel has been removed from the system.

Response Format:

```
{
  "Request": "deleteChannel",
  "Status": "ok",
  "Response": {
    "message": "Channel deleted successfully"
  }
}
```

Request: Reflects back the original request type (`"deleteChannel"`).

Status: The status of the request (`"ok"` for successful requests).

Response: An object containing the response data.

`deleted`: A confirmation message indicating that the channel was successfully deleted.

Error Responses:

No Channel Specified:

```
{
  "Request": "deleteChannel",
  "Status": "error",
  "StatusMessage": "The \"channel\" parameter is missing"
}
```

Channel Doesn't Exist:

```
{
  "Request": "deleteChannel",
  "Status": "error",
  "StatusMessage": "Error, the channel doesn't exist!"
}
```

Notes:

This request can only be sent via WebSocket connection (port `8001` by default).

Authentication is required before deleting channels. Send a [login](#) request or provide a valid token first.

Deleting a channel will:

Remove the channel from the WebSocket configuration

Stop all periodic requests associated with that channel

Disconnect all clients subscribed to that channel

Save the updated configuration to persistent storage

The deletion is permanent and cannot be undone. The channel configuration will need to be recreated if needed.

Use [getChannelList](#) to see available channels before attempting to delete one.

Clients that were subscribed to the deleted channel will need to subscribe to a different channel to continue receiving updates.