User Manual for KepServerEX API Web-based Client | ASP Dijital Dönüşüm Hizmetleri A.Ş.

Introduction

The KepServerEX API Client is a software tool developed by Yunus Emre Vurgun (yunus.vurgun@aspotomasyon.com), from ASP Dijital Dönüşüm Hizmetleri A.Ş.

This API client is specifically designed to seamlessly connect to both IoT Gateway and Configuration API, facilitating efficient data transfer between devices and applications.

For further information or any inquiries regarding this API client, please do not hesitate to contact us via *aspdijital.com/tr/iletisim* or *aspdijital.com/en/contact*.

Prerequisites

Before you can use the KepServerEX client, you need to have the following:

* A KepServerEX server with RESTful API fully-enabled in the settings.

* IoT Gateway add-on enabled and a REST Server setup inside.

* Necessary firewall permissions if there are any restrictions.

* Latest version of Google Chrome or Edge for your operating system.

* A CORS-Policy un-blocker extention for your browser (if needed).

* Enabling insecure content in site settings.

Getting Started

To get started with the ASPDijital KepServerEX API client, follow these steps:

In your web browser, visit https://aspdijital.com/kepserverapi/. Open site settings and allow insecure content. Reload the page.

Wait for the client to load and enter the IP and port of your IoT Gateway and Normal API in the respective fields.

Enter your Normal API credentials (username and password) in the designated fields.

Click the "Check Connection & Connect" button to establish a connection to the server.

Once you are connected, you can start using the client to perform various operations on your KepServerEX server.

Using the Client

The ASPDijital KepServerEX API client has a user-friendly interface that allows you to perform various operations on your KepServerEX server. Here are some of the main features of the client:

IoT Gateway Read Tags and Values

The IoT Gateway Read Tags and Values feature allows you to read the values of the tags on your IoT Gateway. To use this feature, follow these steps:

Interact with the "IoT Gateway Read Tags & Values" in the main menu.

The current values of all tags will be displayed by default.

To hide the tag values, click on the "hide" link.

To change a value, select the tag from the dropdown menu, enter the new value in the designated field, and click the "Change Value" button.

Standard API Access

The Standard API Access feature allows you to manage channels, devices, and tags on your KepServerEX server. To use this feature, follow these steps:

Interact with the "Standard API Access" in the main menu.

The project data will be displayed by default.

To view channel information, select the channel from the dropdown menu.

To view device information, select the device from the dropdown menu.

To create a new tag, enter the tag details in the designated fields and click the "Create Tag" button.

To update an existing tag, select the tag from the dropdown menu, update the tag details in the designated fields, and click the "Change Tag Details" button.

Technology Stack:

HTML: The Hypertext Markup Language is used for creating and structuring the web pages of the project. It is the standard markup language used for creating web pages and applications.

CSS: Cascading Style Sheets are used for styling the web pages. It is a style sheet language that describes the presentation of the document written in HTML.

JavaScript: It is a programming language used for creating interactive and dynamic web pages. JavaScript is used for the client-side scripting of the project.

XMLHttpRequest: It is a built-in JavaScript object used for making asynchronous HTTP requests to the server. It is used to fetch data from the API endpoints of the project.

Bootstrap: It is an open-source CSS framework that is used for designing and creating responsive web pages. Bootstrap is used for the styling of the project.

JQuery: It is a fast, small, and feature-rich JavaScript library. It is used for simplifying the client-side scripting of HTML.

Bootbox: It is a small JavaScript library used for creating programmatic dialog boxes using Twitter's Bootstrap modals. Bootbox is used for the alert and prompt dialogs in the project.

Font Awesome: It is a font and icon toolkit based on CSS and LESS. It is used for adding icons to the project.

The technology stack mentioned above is used for the development of the project. It helps in creating a responsive and interactive web interface that communicates with the server-side APIs and fetches the required data. the project is a client-side web application written in HTML, CSS, and JavaScript. The application communicates with an IoT Gateway and a Normal API using XMLHttpRequests.

The ASPDijital KepServerEX API client is a powerful tool that allows you to interact with KepServerEX through its RESTful API. With its user-friendly interface and advanced features, it can help you manage your KepServerEX server more efficiently and effectively.

Resources Used During The Development Process:

During the development of this API client project, several resources were utilized to ensure a successful outcome. The following list outlines the various resources that were used:

- Mozilla Docs for JS, CSS, and HTML: The Mozilla Developer Network (MDN) provides an extensive library of web development resources, including detailed documentation for JavaScript, CSS, and HTML. These resources were consulted frequently during the development process to ensure proper syntax and functionality.

- Various programming forums, including Stackoverflow threads about HTTP requests and CORS policy errors: When encountering issues related to HTTP requests or CORS policy errors, various programming forums were consulted for solutions. Stackoverflow was particularly helpful in providing solutions to common errors.

- Various websites on client-server communications: Several websites were consulted to better understand client-server communications and ensure that the API client was communicating properly with the server.

- GPT-3.5: Utilized to detect errors in code blocks encountered during the development process, and utilized for rewriting the documentation. The AI was particularly useful in identifying errors and providing suggestions for fixes.