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Changelog

Version	Date	Author	Comment
1.0	20.10.2022	Maris Koch	Created User Manual
1.1	21.10.2022	Maris Koch	First complete user manual with UI-Sketches
1.2	06.11.2022	Maris Koch	Reworked User Manual with feedback from Adrian Khairi and Erika Zhang

1 Introduction

1.1 Overview

This project is a nameplate generator for assets of the Asset Administration Shell, also known as "AAS". The application is able to create graphical illustrations based on the properties provided by the AAS including the ability to generate QR codes according to the IEC 63365 standard. Furthermore, a user-friendly frontend application is designed and implemented utilizing React. This includes a start page where the user can enter a server address. After selecting the server, the user is directed a list where all available assets of the chosen server are displayed. After having picked an asset to view in more detail, the exact content of the asset is displayed in an organized and clear structure. A nameplate for the chosen asset can be downloaded in either SVG or PNG format.

1.2 Glossary

- **AAS** - Asset Administration Shell
- **AASX** - file format to store an asset
- **AASX server** - server, that can store AAS assets and has a standardized API specified in the GitHub repository

2 Installation

2.1 Software Requirements

To make an installation, the requirements are: - a working server able to serve a static HTML supported by JavaScript and CSS - the latest release of the software

To access the nameplate generator as a user, the requirements are: - a state-of-the-art browser, e.g. Firefox or Edge

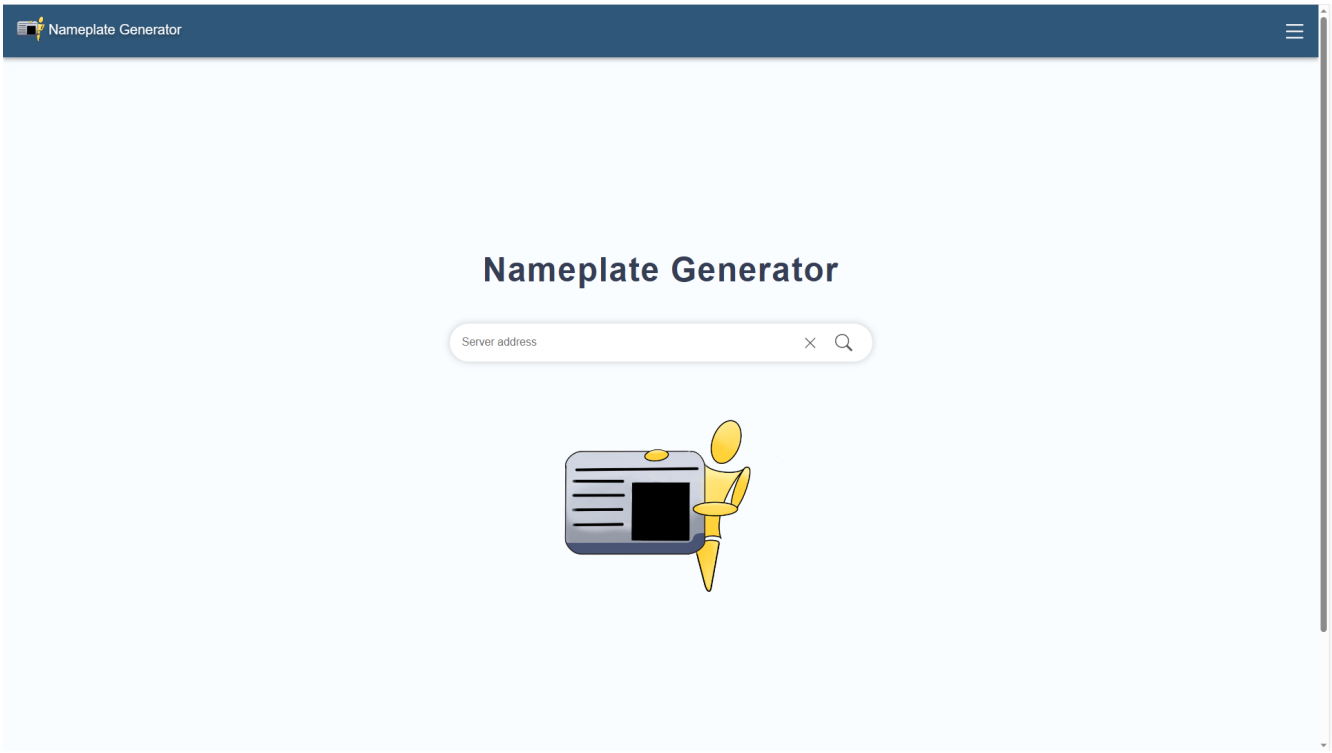
2.2 Installation Process

The nameplate generator is a single-page application with no backend. For installation, only the frontend needs to be served to the user. To install the nameplate generator on a server, download all files from `EXECUTABLE` folder. The operating server needs to serve the *index.html* file on the desired route to the user. The JavaScript and CSS files need to be made publicly accessible. If a user now accesses the website through its browser, the nameplate generator is served up and is ready to be used.

3 Graphical User Interface

3.1 Home Page

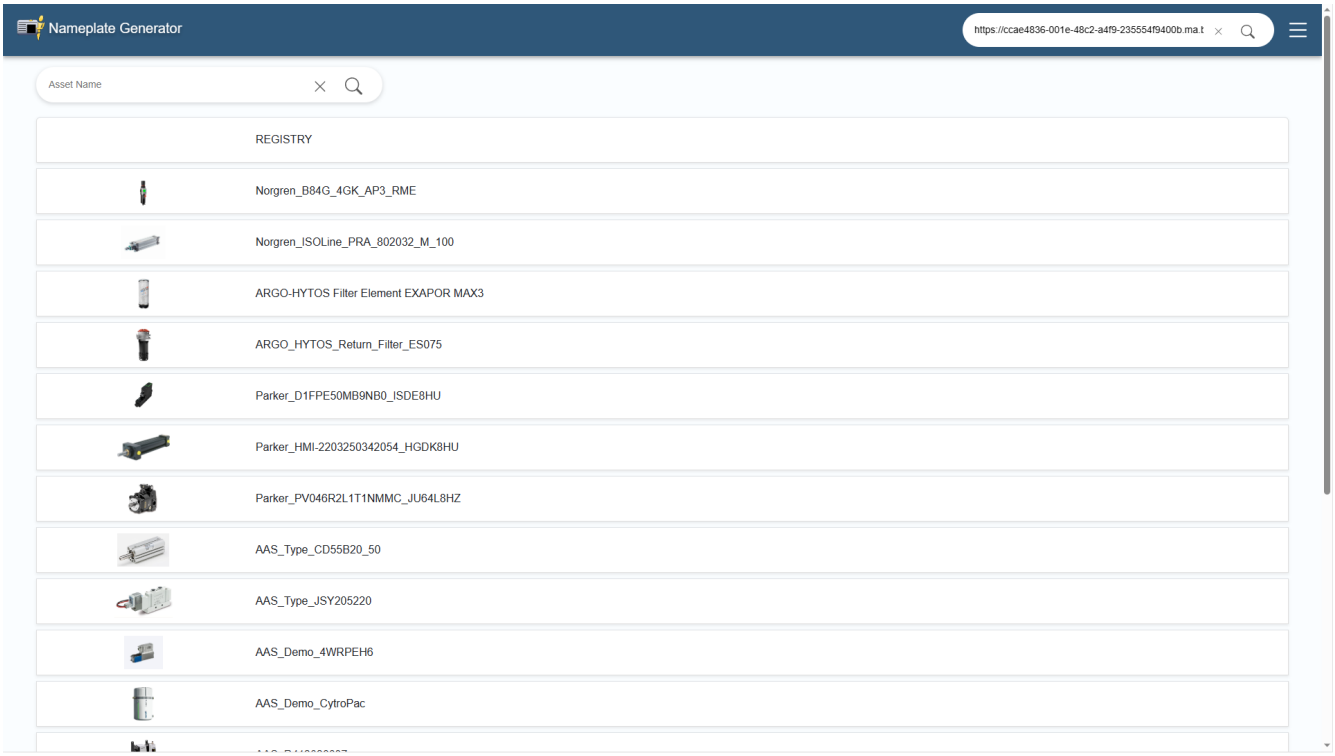
The start page is the entry point for the user. Here the user will be introduced to the central control element for the beginning of the workflow, the search bar. In the search bar, the user has to enter the server address of the AASX server from which the available assets shall be requested. To start the process of fetching data, the user has to press *enter* or click the search icon. Within the hamburger menu in the navigation bar, there are three additional links: *Home*, *About* and *GitHub*. The *Home* button directs the user to the home page. Under *About* is page that provides additional information about the Nameplate generator. The *GitHub* link yields a link to the GitHub repository of the nameplate generator. If the chosen server by the user is reachable, the user will be forwarded to the asset list. If the server is not reachable, the user will be notified.



3.2 Asset List

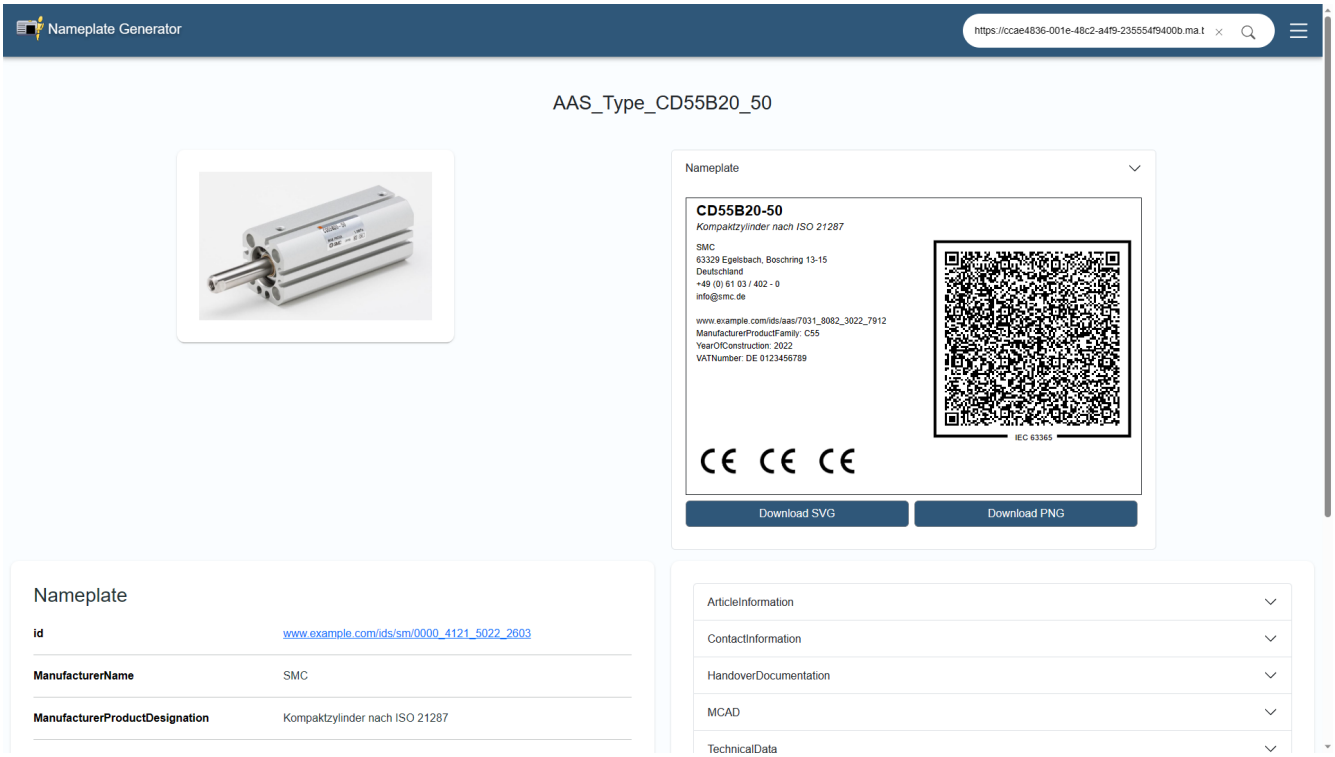
After the user inserted an address for a reachable AASX server into the search bar and started the fetching, it will be forwarded to the asset list. The user will be presented a list of all the available assets on the given server. For each entry in the list, there will be the id short of the asset displayed. At the top of the asset list is a search bar, which allows the user to search for a specific asset on that server. The *Server Address* field in navigation bar is for orientation and shows the user which server he is currently fetching the assets from. When clicked on an asset, the user is forwarded to the asset view.

With the backward arrow of the browser, the user gets back to the start page.



3.3 Asset Information

In the asset information view, the user is presented all the information of the chosen asset. This includes all the information that will be included in the nameplate and further information stored in the asset. In the asset information view, there is the possibility for the user to download the generated nameplate for the asset.



3.4 Download Nameplate

There are two download buttons available in the asset view for the user. One downloads the nameplate for the chosen asset in *.svg* file format, the other downloads the nameplate in *.png* file format. This can be achieved by clicking the *Download SVG* or *Download PNG*.

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