
In-ADS User Guide

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Estonian Land Board



European Union
European Structural
and Investment Funds



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1. Introduction

In-ADS widget is an embeddable HTML5/JavaScript code, which can easily be integrated into custom web solutions to provide a high-quality address search functionality.

The In-ADS widget can be used either as a classical address search bar, or by systems that need to find a list of normalized addresses, meeting the requirements set by ADS, with all relevant meta-information.

This guide is meant for everyday users, who generate embed code by using the respective interface <http://inaaddress.maaamet.ee/inaaddress>. It is highly suitable e.g. for adding an address search function to a website.

On the initial page of the user interface there is a sample In-ADS widget, which the user can see and try out. There are also links to the user guide and the developer guide. The last one is meant for developers, who wish to use In-ADS e.g. in an information system.

Interacting with In-ADS widget happens via JavaScript interface. Various events like selecting the address (that are implemented as *DOM* events) trigger In-ADS widget to return JavaScript object with address data. The external system can also invoke different functions of In-ADS. Further information can be found in the developer guide.

2. Requirements

The In-ADS widget uses HTML5 standard. Thus, supported are *browsers* that support the above standard. Currently (as of the 10th of December 2019) the supported *browsers* are:

- Internet Explore versions 10 and 11
- Microsoft Edge
- Safari version 5.1.7 or newer
- Google Chrome version 38.0.2125.101m or newer
- Mozilla Firefox version 32.03 or newer.

The recommended minimum size of the widget with a map is 300x300 px.

3. Embed code generation

The user can generate In-ADS HTML5 embed code dynamically by using the web interface that separates configurable options into different pages.

3.1 Main modes of operation

First the desired mode of operation has to be chosen:

Mode of operation	Description
Address search bar with a map	Both the address search box and the map, on which the found addresses are displayed, are shown. It is also possible to select the address on the map.
Address search bar with a map (by default the map is hidden)	Similar to the previous option, but by default the map is hidden. There is a separate button for displaying and hiding the map
Address search bar without a map	Only the address search box is displayed. In this mode only address-based search is enabled.
Only map for displaying the location	Only the map is displayed and addresses cannot be searched through the user interface. This mode is meant for displaying specific addresses pre-set during the creation of the In-ADS widget. It is possible for the user to make a selection from among the addresses displayed on the map.

Additionally, the ID value of a DIV element, into which the In-ADS widget will be placed, must be set.

If the user is willing to change the appearance of the widget, it's possible to check the option to use a custom CSS file. If this option is selected, the widget's

CSS file is not used ("nocss":true). As the widget uses *jQueryMobile* (version 1.4.3) layout, the use of a respective CSS file is recommended to make the creation of custom layout easier. The CSS file is available at <http://inaaddress.maaamet.ee/inaaddress/theme/default/jquery.mobile-1.4.3.css>

If so desired, also the *jQueryMobile ThemeRoller* tool (<http://themeyeroller.jquerymobile.com>) can be used. This tool enables an easy styling of all kinds of *jQueryMobile* widgets and a generation of a respective CSS file.

While using *ThemeRoller*, besides the addition of CSS file, also the *jQuery* and *jQueryMobile JavaScript* files must be added to the header.

Example:

```
<link rel="stylesheet"
href="http://code.jquery.com/mobile/1.4.3/jquery.mobile.structure-1.4.3.min.css" />
<script type="text/javascript" src="
http://inaaddress.maaamet.ee/inaaddress/js/jquery.min.js"></script>
<script type="text/javascript" src="
http://inaaddress.maaamet.ee/inaaddress/js/jquery.mobile-1.4.3.min.js"></script>
<script type="text/javascript" src="
http://inaaddress.maaamet.ee/inaaddress/js/inaaddress.js"></script>
```

There are also optional choices whether to display a scale bar and a measuring tool on the map or not.

For the use of the In-ADS widget in full screen mode (e.g. in mobile version) the box "Show Full Screen" must be checked.

3.2 Object types and priorities

A radio button allows to choose between the address-based and object-based searches.

<input checked="" type="radio"/> General address search
<input type="radio"/> Select object types (object-based search)
<input type="checkbox"/> Classification of Estonian administrative units and settlements (EHAK)
<input type="checkbox"/> Territorial address unit
<input type="checkbox"/> Cadastral unit
<input type="checkbox"/> Traffic surface
<input type="checkbox"/> Building
<input type="checkbox"/> Buildings with UN attribute
<input type="checkbox"/> Select apartment
<input type="checkbox"/> Allow adding new apartments
<input type="checkbox"/> Display filters

Object types:

- General address search – all object types are searched for and found addresses are returned (if multiple objects are related to a single address, the one with the highest priority is displayed in conformity with priority rules)
- Select object types (object-based search) – object types to be searched for can be selected. The search result returns all found objects matching the searched address, the sequence of objects is based on priority rules. If also building is selected, it will be possible to restrict the search in a way that only buildings with the uniqueness requirement of an address are searched for. Buildings requiring a unique address are e.g. residential buildings, schools, commercial buildings, accommodation buildings, hospitals, etc.; buildings not requiring a unique address are e.g. sheds and other outbuildings in which people are not expected to reside on a daily basis.

In the search for buildings also apartments can be included. Users can be allowed to enter also new apartments, but these are not saved anywhere being only of an informative value to the external system. **NB!** Any information about apartments missing in ADS (new apartments), or about data contradicting to the reality or otherwise problematic should be sent to ads.abi@maaamet.ee.

Priority rules define which object has preference in address-based search or in what sequence objects are displayed in object-based search.

3.3 Map layers

3.3.1 Selection of base layers

If the selected mode of operation includes also a map, it will be possible to choose the background maps to be added to the widget. If more than one layer is selected, it will also be possible to set the default base layer.

3.3.2 Selection of map layers

In addition to the background map, other map layers can be added to the map, e.g. addresses or cadastral parcels (these map layers are always displayed on the map and the user cannot turn them on/off).

3.3.3 Additional WMS layers

Besides the background map and the Land Board's maps, additional WMS layers of third parties can also be displayed on the map. To be able to do that, the URL of WMS service with the VERSION and LAYERS parameters must be inserted. For example:

http://kaart.maaamet.ee/wms/aadressid?version=1.1.1&layers=ads_hoone.aads_hoone_aadr

Multiple WMS layers can be added.

Additionally specified WMS layers will be displayed on top of the map in the order of adding and they cannot be managed further.

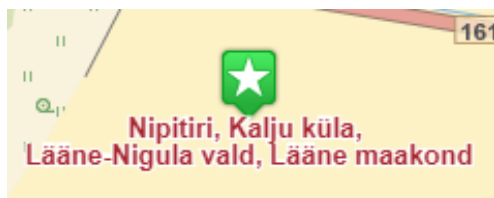
3.4 EHAK filter

EHAK filter allows to limit search results to county, local government or settlement level. In this case objects are searched for only from the selected EHAK area and the map is by default opened in the selected EHAK area.

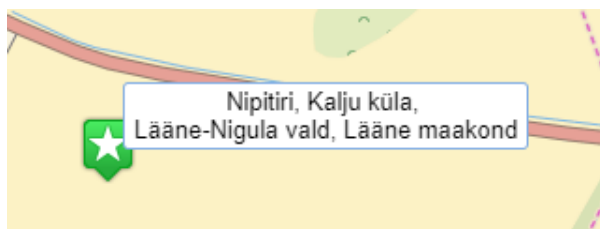
3.5 Marking the location on the map

Provided that “Only map for displaying the location” mode of operation has been chosen, it is possible to visualise the location on the map together with tooltips.

To add a location to the map, the desired address has to be entered into the search bar and a choice made from the list, or an appropriate location clicked on the map. After the choice has been made, a textbox with the found addresses will be displayed next to the map and a marker with a label will be shown on the map. The label text can be changed by entering an appropriate name into the box. Instead of label the text can be displayed also in tooltip or in both. If both is selected, then using symbol | in text the text before | is displayed in label and the text after | is displayed in tooltip. Several locations can be added to the map by repeating the above actions. Tooltips can be deleted by clicking the button “Delete” next to the text box or the button “Delete objects” at the end of the list. “Zoom to” button will zoom the map to the extent of selected objects.



Label in the picture – text displayed next to the marked location.



Tooltip in the picture – text is displayed, when hovering on the marked location.

The chosen location will also serve as the initial view of the generated in-ADS widget. To change the initial view, it is necessary to navigate on this page to a desired location.

3.6 Generated code for In-ADS widget

The code that was generated according to previous choices will be presented on the last page.

The code to be added to the header of HTML page (*JavaScript* of the In-ADS widget):

HTML lehe päis

```
<script type="text/javascript" src="http://lbads1.webdb.maaamet.ee/inaadress/js/inaadress.min.js"></script>
```

And *JavaScript* part of the In-ADS widget. For example:

javascript kood In-ADS käivitamiseks

```
var inAddress = new InAddress({"mode":"1","container":"kaart","nocss":true,"searchLayers":
["EHITISHOONE"],"apartment":1,"priority":1,"defaultBaseLayer":"ALUSKAART","baseLayers":["ALUSKAART","ORTOFOTO","HYBRIID"],"mapLayers":
["KATASTRIYKSUS"]});
```

The example of HTML-page that uses the generated code is also provided:

```
<!DOCTYPE HTML>
<html>
<head>
<title>In-ADS komponent</title>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<meta name="viewport" content="width=device-width">
<script type="text/javascript" src="http://inaadress.maaamet.ee/inaadress/js/inaadress.min.js"></script>
</head>
<body>
<div id="InAddressDiv" style="width: 600px; height: 450px"></div>
<script>
var inAddress = new
InAddress({"container":"InAddressDiv","mode":"1","nocss":false,"apartment":0,"ihist":"1993","defaultBaseLayer":"ALUSKAART","baseLayers":
["ALUSKAART"],"WMS":{"lang":"et"}});
</script>
</body>
</html>
```

The height and width of DIV element can be used for setting the width, and in case a map is included, also the height of the widget. The default width of the widget is 100% and the default height for the widget with a map is 450 px.

By default, the widget is in the same language as code generator page, but it can be changed by changing the value of *lang* parameter in the code. For Estonian language the value is “et”, for English “en” and for Russian “ru”.

When the widget is used with a map neither the widget itself, nor the surrounding container can be hidden (*style="display:none"*).

In-ADS can be used also over HTTPS :
(<https://inaaddress.maaamet.ee/inaaddress>).

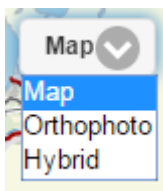
4. In-ADS widget

4.1 Map

Depending on the configuration, the widget consists either of a map with a search field, only a map, only a search field or a search field and a button with which it is possible to show/hide the map.

The map component consists of a map window. The layers displayed on the map cannot be managed by the user. The components to be displayed on the map are as following:

1. Selection list of base layers (a predefined choice of base maps). In addition to using the mouse, it is possible to move around in the list by using *Up* and *Down arrows* and confirming the choice with *Enter*.



2. Navigation buttons for zooming the map in and out. Zooming in/out can be done also by using the mouse wheel.



3. Information button



By turning on the information button and clicking on an object on the map, the user can see a more detailed information about the object. Information will be displayed according to the preselected object types. When search by address was selected, a list of all objects found in this location will be returned. When certain object types were selected, the result displays objects only from these types. The window can be closed by using the *Esc* key.

By clicking on the map it is possible to choose the address (providing the mode of operation includes a map). For that it is necessary to navigate to the desired location and click on the searched object. If there is only one object in the selected location, the address of this object will be displayed in the address search bar and an orange marker will be displayed on the place of click. If there are several objects of the same type in the selected location, the user will be asked to choose the object. After making the selection and confirming it, the address of the selected object will be displayed in the address search bar.

In the scales between 1:4000 and 1:40000 the returned selection of objects includes cadastral parcels, EHAK, territorial units and traffic spaces. In larger scales also buildings are included. If only certain types of objects are predefined, only these will be suggested to the user.

4.2 Address search

A rectangular search input field with a light gray border. On the left side, there is a magnifying glass icon followed by the text "Search by address".

Q Search by address

By entering an address into the search box, a selection of found addresses will be returned. You can also enter POI name (for example “Maa-amet”) or postal code and at least 2 characters (for example „10621 Mustamäe tee 51“). It is also possible to search addresses by including district or place name from other sources (for example „Koidu 26 Kassisaba“). The list of results contains always at maximum 10 addresses. If the searched address is not among the found addresses, the search must be specified further. In case the number of found addresses is 5 or less, the found addresses will directly be displayed on the map that will be zoomed to the proper extent (provided the mode of operation includes a map). In this case there is an orange marker in front of each address, which shows where the given address is located on the map. With the object-

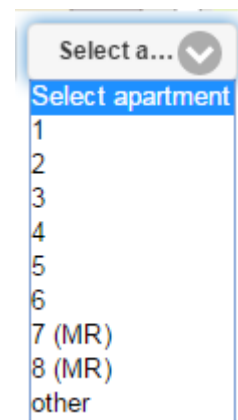
based search (the types of objects to be searched from were predefined) the search result displays also the object type (KÜ – cadastral parcel, HÜ – EHAK, LP – traffic surface, VK – territorial unit, H – building).

In addition to mouse, also the keys *tab* and *shift+tab* can be used for moving up and down in the list of displayed addresses by confirming the choice with *Enter*.

When the user does not know the address or cannot find it for whatever reason, it is always possible to choose the address on the map (providing the mode of operation includes a map). For that it is necessary to navigate to the desired location and click on the searched object. If there is only one object in the selected location, the address of this object will be displayed in the address search bar and an orange marker will be displayed on the place of click. If there are several objects of the same type in the selected location, the user will be asked to choose the object. After making the selection and confirming it, the address of the selected object will be displayed in the address search bar. In the scales larger than 1:5000 only EHAK, territorial unit and traffic space objects are suggested. In scales smaller than 1:5000 cadastral parcels, buildings, streets and traffic spaces are displayed. If only certain types of objects are predefined, only these will be suggested to the user.

4.2.1 Apartment search

If settings enable also searching by apartments, there are two options how to do it. If the entered address includes the apartment number (separated by hyphen), e.g. Sõle 5-40, the returned results will show addresses together with apartment numbers. When only the address of a building is entered, then, after making a choice from the address list, a separate list with apartment numbers will appear from which the user can choose the desired apartment. Also the *Up* and *Down* keys can be used for moving around in the list and the choice can be confirmed with the *Enter* key.



In case the settings of the In-ADS widget enable also adding of new apartments, the list includes an option “other”. By choosing it, a new dialogue box will be opened into which the user can enter the apartment number. Non-residential apartments have their own designation (MR). The number of an apartment,

which does not exist in ADS, can also be entered into the search bar together with the address.

4.2.2 Historic addresses

When the user searches by historic addresses (e.g. võidu väljak), the search results will still display the valid addresses, but the historic part of the address is shown in brackets in capital letters (e.g. Vabaduse väljak (VÕIDU VÄLJAK), Kesklinna linnaosa, Tallinna linn, Harju maakond).

5. In-ADS gazetteer monitoring

In footer of In-ADS codegenerator page there are icons that will show how loaded in-ADS gazetteer currently is. When green icon is displayed, then currently there is no heavy load. When yellow icon is displayed, then there are currently 200-400 open connections to gazetteer. When red icon is displayed, then there are over 400 open connections to gazetteer.