



Erweiterungen rund um OpenAddresses

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Inhalt

- OpenAddresses Basics
- Qualitätsaspekte
- Synchronisation mit OSM



OpenAddresses Basics

OpenAddresses (OA):

- www.openaddresses.org
- Erfassung von geokodierten Gebäudeadressen als Punkte
(Strasse, Hausnummer, Postleitzahl, Ort, Gebäudeangaben, Land, u.a.)
- Geokodier-Dienste
- Adressdaten-Download
- Lizenz: identisch mit OSM
- Realisiert mit MapFish / PostgreSQL/PostGIS
- PSC

OpenAddresses Basics



Management of free and open worldwide localized addresses

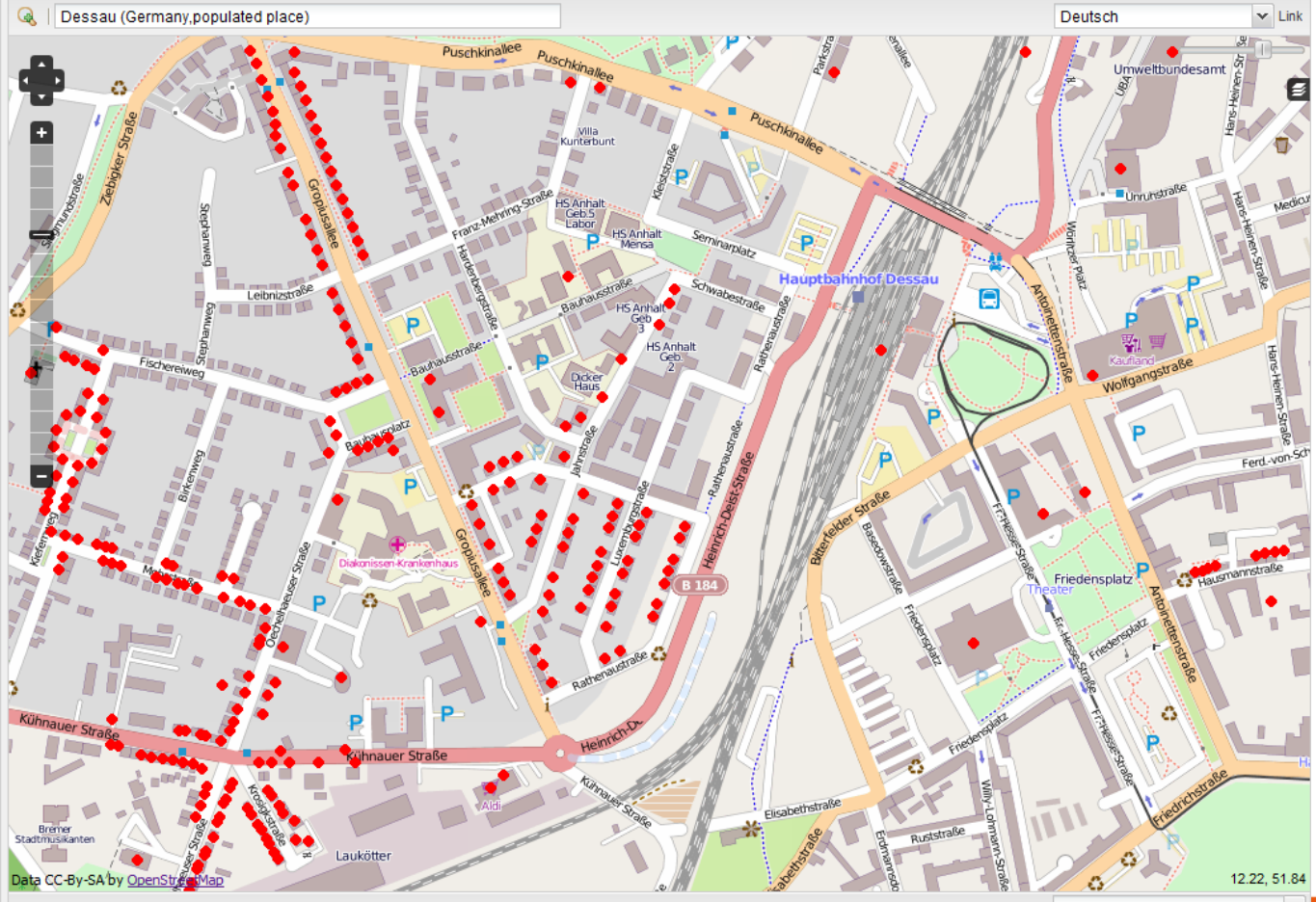
OpenAddresses

- 1 Klick in Karte
- 2 Adressdaten eingeben
- 3 Speichern

Fertig!

OpenAddresses ist ein Portal für die Erhebung und Verarbeitung von Gebäudeadressen weltweit

[Benötigen Sie Hilfe?](#)



Dessau (Germany, populated place)

Deutsch

Link

Routing
Hochladen
Bezug
Dienste
Statistik
Lizenz
Impressum
Über OpenAddresses

Data CC-BY-SA by OpenStreetMap

12.22, 51.84

long/lat/WGS84

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Über OpenAddresses

Dessau (Germany, populated place)

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Adresseneditor

Benutzername: stark

Strasse: Hardenbergerstrasse

Gebäudenummer: 9

Postleitzahl: 06846

Stadt: Dessau-Roßlau

Land: Germany

Qualität: Digitalisiert

GebäudeName:

Locality: Dessau

Region: Sachsen-Anhalt

Löschen Abbruch Erstellen

Map showing Dessau, Germany, with a red dot indicating the location of the address being edited. The map includes labels for streets like Grobusallee, Leibnizstraße, and Hauptbahnhof Dessau.

Data CC-BY-SA by OpenStreetMap

long/lat WGS84



OpenAddresses Basics

[Project Home](#) [Downloads](#) [Wiki](#) [Issues](#) [Source](#)

[Summary](#) [People](#)

Project Information
[Project feeds](#)
Code license
[GNU GPL v3](#)
Members
[cedric.m...@gmail.com](#),
[ilmise...@gmail.com](#),
[luki.bae...@gmail.com](#),
[yves.bol...@gmail.com](#),
[s.and...@fh-kaernten.at](#),
[jaykay...@gmail.com](#),
[luca.pa...@gmail.com](#),
[hansjoer...@gtempaccount.com](#),
[gisl...@gmail.com](#),
[stef.and...@gmail.com](#)
Links
Blogs
[Openaddresses](#)
[Twitter](#)
Groups
[Discussion](#)

www.openaddresses.org

www.openaddresses.org is an Open Source web portal for the management of Open worldwide geolocated postal addresses.

www.openaddresses.org offers an easy to use address editing service and geocoding/reverse geocoding services based on address data.

www.openaddresses.org stores ONLY geolocated postal addresses. Features associated to postal addresses like persons, companies, point of interests are not part of openaddresses.

www.openaddresses.org aims to collaborate nicely with www.openstreetmap.org by exchanging data, but since localized addresses are a very specific topic, it is appropriate to have a platform dedicated only to addresses.

www.openaddresses.org is based on an original idea of Hans-Jörg Stark who initiated www.openaddresses.ch and www.openaddresses.at

Some areas of interest:

- [Carmignano, Italy](#)
- [Solothurn, Switzerland](#)
- [Bad Kleinkirchheim, Austria](#)
- [Lausanne, Switzerland](#)
- [München, Germany](#)

Information

- [Number of addresses created today](#)

Thanks to the addresses donators

- [Canton of Zug, Switzerland](#)
- [Canton of Solothurn, Switzerland](#)
- [City of Grossaffoltern, Switzerland](#)
- [City of Goldach, Switzerland](#)
- [City of Morges, Switzerland](#)
- [City of Flond, Switzerland](#)
- [City of Ilanz, Switzerland](#)
- [City of Klosters, Switzerland](#)
- [City of Luven, Switzerland](#)
- [City of Sagogn, Switzerland](#)
- [City of Surcasti, Switzerland](#)
- [City of Surcuolm, Switzerland](#)
- [City of Tersnaus, Switzerland](#)
- [City of Uors, Switzerland](#)
- [City of Villach, Austria](#)



OpenAddresses Basics

GeoCoding Service

Examples

- Get three addresses of Genève containing Vogt
 - <http://www.openaddresses.org/addresses/?limit=3&attrs=street.housenumber.city&query=Gen%E8ve%20Vogt>
- Get three addresses of Genève containing Vogt, with callback
 - <http://www.openaddresses.org/addresses/?limit=3&attrs=street.housenumber.city&query=Gen%E8ve%20Vogt&callback=myCallback>
- Get the coordinate of the address of "Chemin des Fleurettes 31" in "Lausanne"
 - http://www.openaddresses.org/addresses/?queryable=city.housenumber.street&city__ilike=%Lausanne%&houzenumber__like=31&street__ilike=%Chemin%20Des%20Fleurettes%2031
- Extract the first three addresses in the city of "Lausanne" and return only the street, housenumber and city attribute, without geometry.
 - http://www.openaddresses.org/addresses/?limit=3&queryable=city&city__ilike=Lausanne&attrs=street.housenumber.city&no_geom=true
- Extract the addresses near a point with a specific name:
 - http://www.openaddresses.org/addresses?lon=6.62&lat=46.51&tolerance=0.01&queryable=street&street__ilike=%Chemin%20du%20M%20

Reverse GeoCoding Service

Examples

MapFish Reverse GeoCoding Service

- Extract all the addresses in a tolerance of 1000 m around coordinate 600'000/200'000 of Switzerland EPSG=21781. Return geometry is in EPSG:4326
 - <http://www.openaddresses.org/addresses/?lon=600000&lat=200000&tolerance=1000&epsg=21781>

Count

Examples

- Count the number of addresses
 - <http://www.openaddresses.org/addresses/count/>
- Count the number of addresses created today
 - <http://www.openaddresses.org/addresses/countCreatedToday>
- Count the number of addresses updated today
 - <http://www.openaddresses.org/addresses/countUpdatedToday>

Download

The **MapFish** protocol and its KVP can be used to create the query. CSV or ZIP containing a csv file can be downloaded



OpenAddresses Qualität

Qualitätsaspekte (nach ISO/TC211 191xx):

- Vollständigkeit
- Attributgenauigkeit
- Lagegenauigkeit
- u.a.m.

data quality element	data quality subelement	definition
completeness	commission	excess data present in a dataset
	omission	data absent from a dataset
logical consistency	conceptual consistency	adherence to rules of the conceptual schema
	domain consistency	adherence of values to the value domains
	format consistency	degree to which data is stored in accordance with the physical structure of the dataset
	topological consistency	correctness of the explicitly encoded topological characteristics of a dataset
positional accuracy	absolute or external accuracy	closeness of reported coordinate values to values accepted as or being true
	relative or internal accuracy	closeness of the relative positions of features in a dataset to their respective relative positions accepted as or being true
	gridded data position accuracy	closeness of gridded data position values to values accepted as or being true
temporal accuracy	accuracy of a time measurement	correctness of the temporal references of an item (reporting of error in time measurement)
	temporal consistency	correctness of ordered events or sequences, if reported
	temporal validity	validity of data with respect to time
thematic accuracy	classification correctness	comparison of the classes assigned to features or their attributes to a universe of discourse (e.g. ground truth or reference dataset)
	non-quantitative attribute correctness	correctness of non-quantitative attribute
	quantitative attribute accuracy	accuracy of quantitative attributes



OpenAddresses Qualität

Qualitätsaspekte für OA:

- Vollständigkeit der Adressen – Bei Eingabe
- Attributgenauigkeit – Vergleich mit OWMS
- Lagegenauigkeit – Vergleich mit OWMS



OpenAddresses Qualität





OpenAddresses Qualität

Implementierung:

- Nach Erfassung / Mutation Vergleich des OA Datensatzes mit OWMS (GM, YM, BM)
- Speichern der Ergebnisse
 - Attribute: binär
 - Lage: Lagedifferenz
- Ausgabe eines Reports



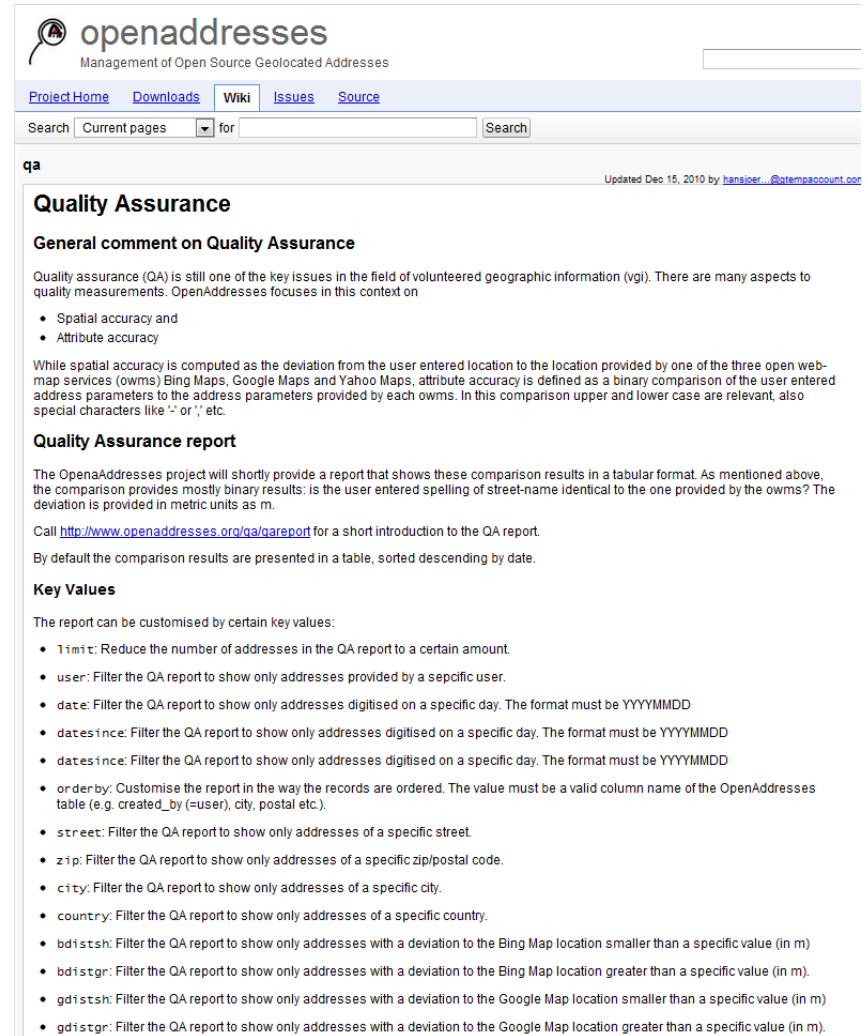
OpenAddresses Qualität

Quality-Report:

- Aufruf über URL mit KVP
- QM-Manager für spezifische Gebiete

Quality-Messaging

- Automatische Mail-Benachrichtigung (bspw. für Behörden)



The screenshot shows the OpenAddresses website interface. At the top, there's a navigation bar with links for Project Home, Downloads, Wiki, Issues, and Source. Below this is a search bar. The main content area is titled 'Quality Assurance' and includes a 'General comment on Quality Assurance' section. This section explains that Quality Assurance (QA) is a key issue in the field of volunteered geographic information (vgi) and lists two aspects: Spatial accuracy and Attribute accuracy. It also mentions that spatial accuracy is computed as the deviation from the user-entered location to the location provided by one of the three open web-map services (owms) Bing Maps, Google Maps, and Yahoo Maps. Below this, there's a 'Quality Assurance report' section, which states that the OpenAddresses project will soon provide a report showing comparison results in a tabular format. It also provides a link to a short introduction to the QA report. Finally, there's a 'Key Values' section that lists various filters and parameters that can be used to customise the QA report, such as limit, user, date, datesince, order by, street, zip, city, country, bd1stsh, bd1stgr, gd1stsh, and gd1stgr.

OpenAddresses Qualität

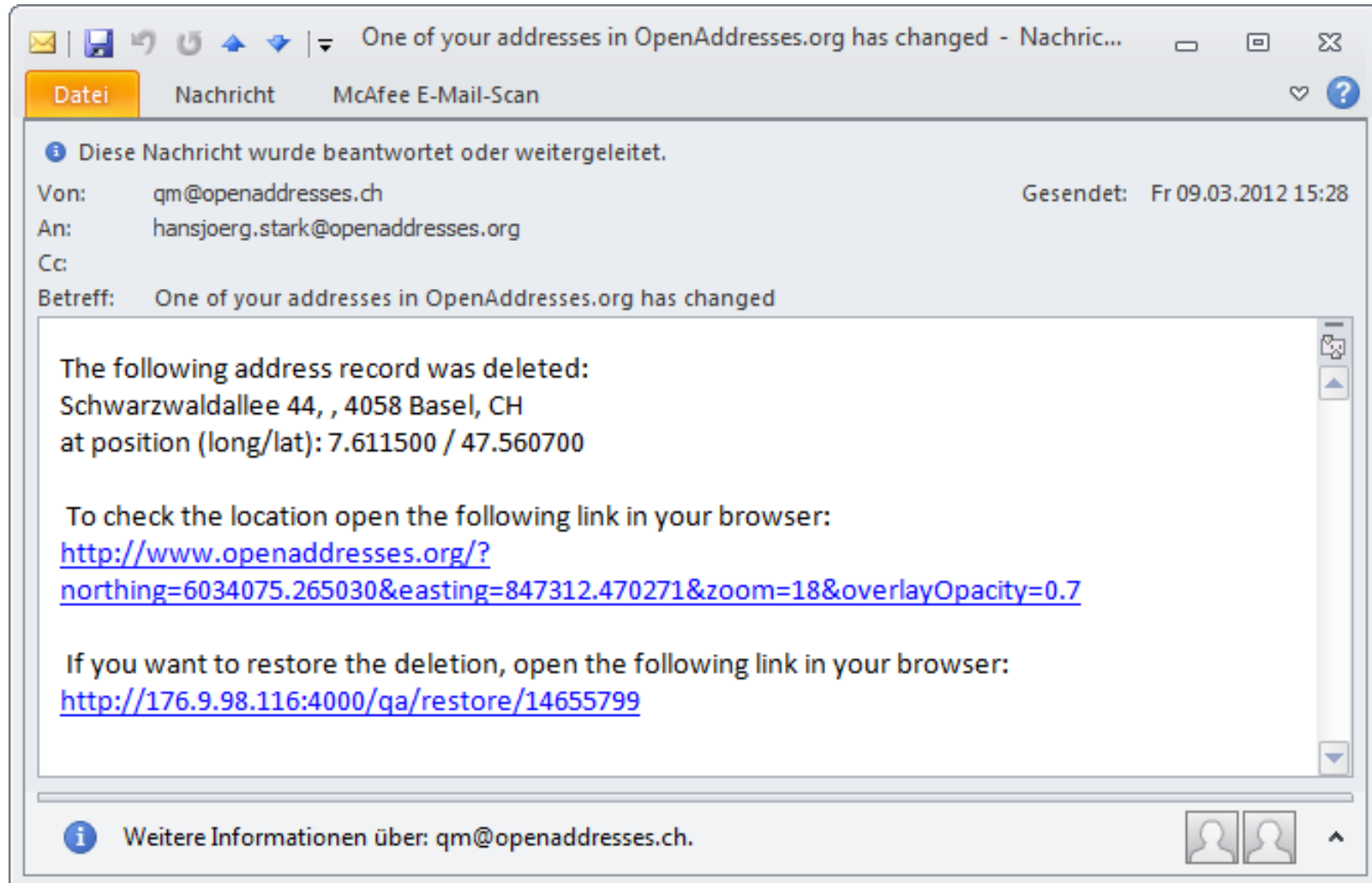
Quality Report for 26 OpenAddresses Objects

This page shows results of comparison of OpenAddresses.org addresses to OpenWebMapServices from Bing, Google and Yahoo.
Distance values as deviations are in [m]. 'True' and 'False' values indicate the result of a binary comparison of the user entered values to the ones from the mentioned OWSM.
'Precision' indicates as binary value whether the user entered address values could be geocoded by the OWSM to address-level.

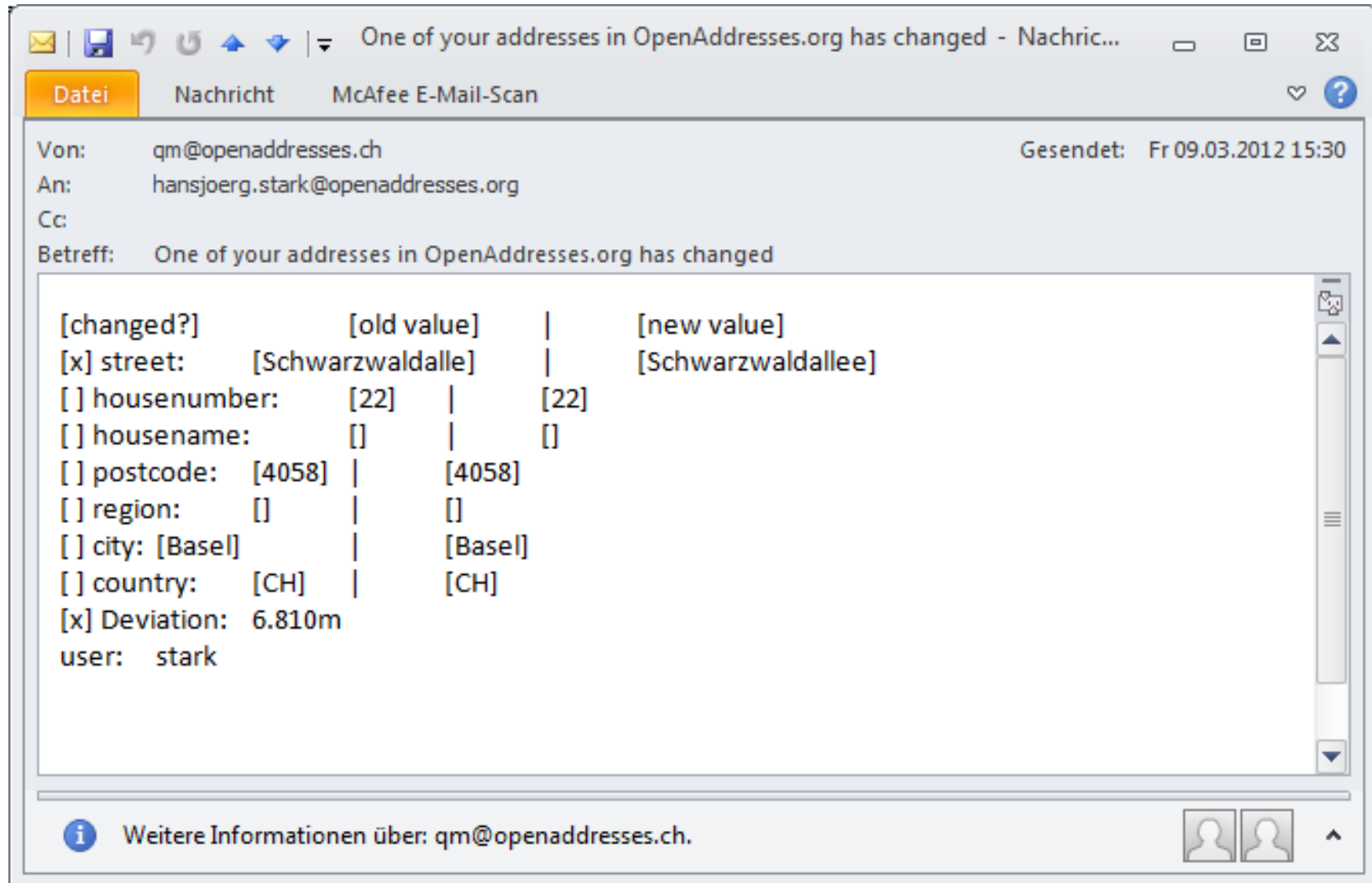
In order to change the position or address values of an address simply click on its id. OpenAddresses launches in a new window at the address' location.

id	User Street	Number	Zip code	City	Country	Bing Distance	Bing Address	Bing Zip	Bing City	Bing Precision	Google Distance	Google Address	Google Zip	Google City	Google Precision	Yahoo Distance	Yahoo Address	Yahoo Zip	Yahoo City	Yahoo Precision	Date
13193656	stark Frobургstrasse	16	4052	Basel	CH	19.3442	True	True	True	True	1.4795	True	True	True	True	20.5827	True	True	True	True	2012-03-15-10:08:03
13195462	stark Homburgerstrasse	4	4052	Basel	CH	14.4294	True	True	True	True	1.5029	True	True	True	True	6.3613	True	True	True	True	2012-03-15-10:05:18
13193657	stark Froburgstrasse	14	4052	Basel	CH	17.8348	True	True	True	True	6.2077	True	True	True	True	22.0151	True	True	True	True	2012-03-15-10:02:13
13193654	stark Froburgstrasse	20	4052	Basel	CH	20.182	True	True	True	True	6.566	True	True	True	True	16.0675	True	True	True	True	2012-03-15-09:51:08
13193655	stark Froburgstrasse	18	4052	Basel	CH	15.333	True	True	True	True	4.9477	True	True	True	True	14.27	True	True	True	True	2012-03-15-09:43:37
13195471	stark Homburgerstrasse	20	4052	Basel	CH	13.4774	True	True	True	True	7.312	True	True	True	True	7.9298	True	True	True	True	2012-03-15-09:18:39
13193653	stark Froburgstrasse	22	4052	Basel	CH	24.3203	True	True	True	True	3.1005	True	True	True	True	17.0606	True	True	True	True	2012-03-15-09:08:52
10200717	stark Froburgstrasse	24	4052	Basel	None	26.1031	True	True	True	True	2.7786	True	True	True	True	16.1167	True	True	True	True	2012-03-15-09:08:10
13195597	stark Wildensteinerstrasse	11	4052	Basel	CH	38.307	True	True	True	True	5.2081	True	True	True	True	25.2528	True	True	True	True	2012-03-10-16:20:09
13195587	stark Farnsbürgerstrasse	39	4052	Basel	CH	26.2209	True	True	True	True	9.0695	False	True	True	True	13.2428	True	True	True	True	2012-03-09-20:49:43
14655800	stark Schwarzwaldallee	22	4058	Basel	CH	40.2206	True	True	True	True	1.7737	True	True	True	True	36.5529	True	True	True	True	2012-03-09-15:29:34
13227175	starki Froburgstrasse	17a	4052	Basel	CH	25.1313	False	True	True	True	7.7732	False	True	True	True	23.8104	False	True	True	True	2012-03-09-15:25:27
13195432	stark St. Alban-Rheinweg	200	4052	Basel	CH	1951.6274	False	False	True	True	8.995	False	True	True	True	12.6817	False	True	True	False	2012-03-09-15:19:55
13195437	stark Ramsteinerstrasse	3	4052	Basel	CH	25.1283	True	True	True	True	2.9274	True	True	True	True	15.5094	True	True	True	True	2012-03-09-15:01:58
13230733	stark Gellertpark	2	4052	Basel	CH	36.4475	True	True	True	True	5.9134	True	True	True	True	26.6281	True	True	True	True	2012-03-09-14:50:04
13195516	stark Zürcherstrasse	149	4052	Basel	CH	56.6209	True	True	True	True	22.6969	True	True	True	True	46.2507	True	True	True	True	2012-03-09-12:28:45
13195515	stark Farnsbürgerstrasse	7	4052	Basel	CH	78.5256	True	True	True	True	1.8525	True	True	True	True	53.5356	True	True	True	True	2012-03-09-12:28:20
14455576	OSM Hardstrasse	41	4052	Basel	CH	601.205	False	True	True	False	63.7508	False	True	True	True	65.893	False	True	True	False	2012-03-08-11:24:17
14655784	stark Alemannengasse	22	4058	Basel	CH	35.1107	True	True	True	True	67.0361	False	True	True	True	36.4306	False	True	True	False	2012-03-08-11:09:27
13322919	stark Römergasse	8	4058	Basel	CH	43.7298	True	True	True	True	49.749	True	True	True	True	17.7681	True	True	True	True	2012-03-08-11:08:09
13322921	stark Schaffhauser Rheinweg	7	4058	Basel	CH	20.5554	False	True	True	True	1354.3771	False	True	True	False	20.6628	False	True	True	True	2012-03-08-11:07:28
14655775	stark St. Alban-Rheinweg	108	4052	Basel	CH	584.2672	False	False	False	False	4.0894	False	True	True	True	136.4943	False	True	True	False	2012-03-07-16:43:35

OpenAddresses Qualität



OpenAddresses Qualität





OpenAddresses OSM Sync

Implementierung:

- OA-Adressen werden automatisch in OSM eingetragen
- Mutationen werden automatisch an OSM weitergegeben
- Löschen von OA-Adressen führt zum Löschen der entsprechenden OSM Adresse

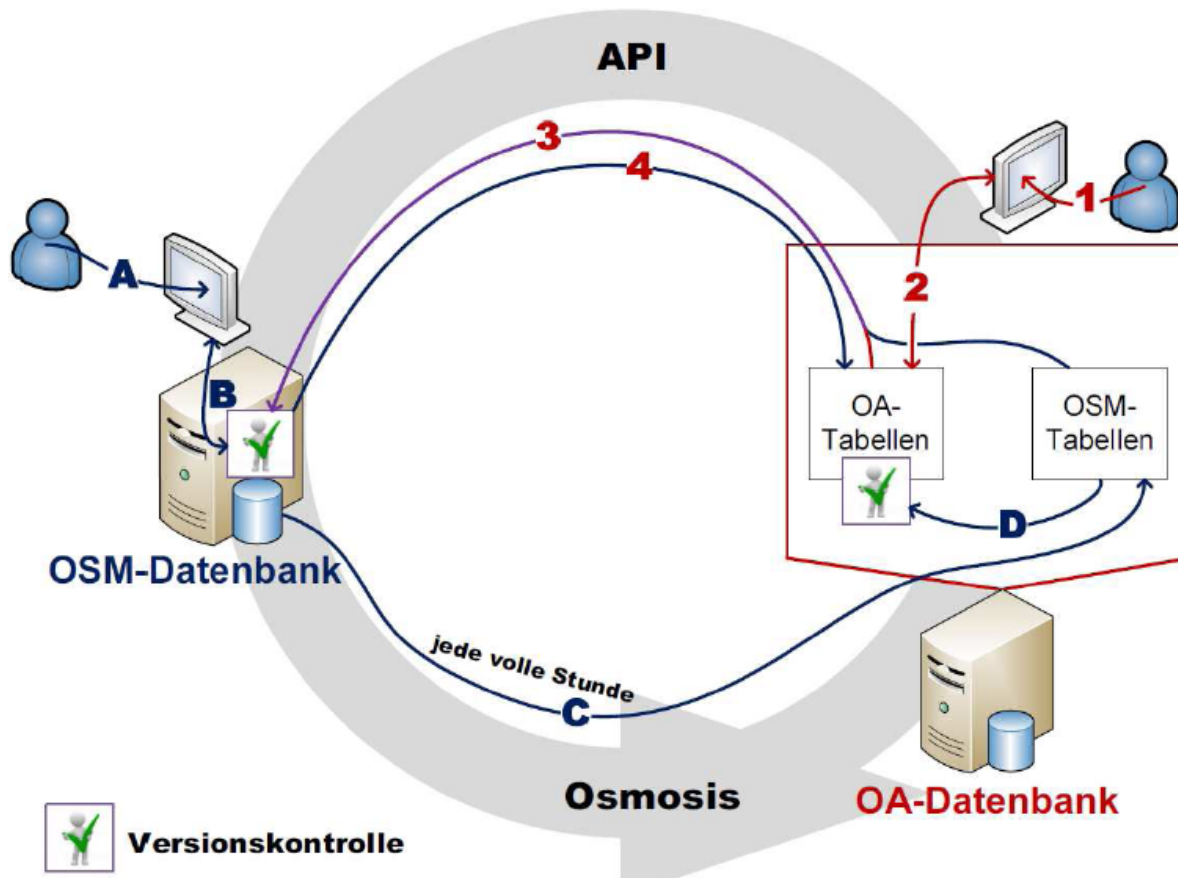


OpenAddresses OSM Sync

Implementierung:

- OSM-Adressen werden periodisch aus OSM in OA importiert und Änderungen entsprechend vollzogen (*keine Interpolation!*)
- Änderungen werden mit OSM-Versionsnummer dokumentiert, anhand derer eine Mutation (nicht) übernommen wird
- Löschen von Adressen in OA, die ursprünglich von OSM stammen, können nur in OA, nicht aber direkt in OSM gelöscht werden

OpenAddresses OSM Sync

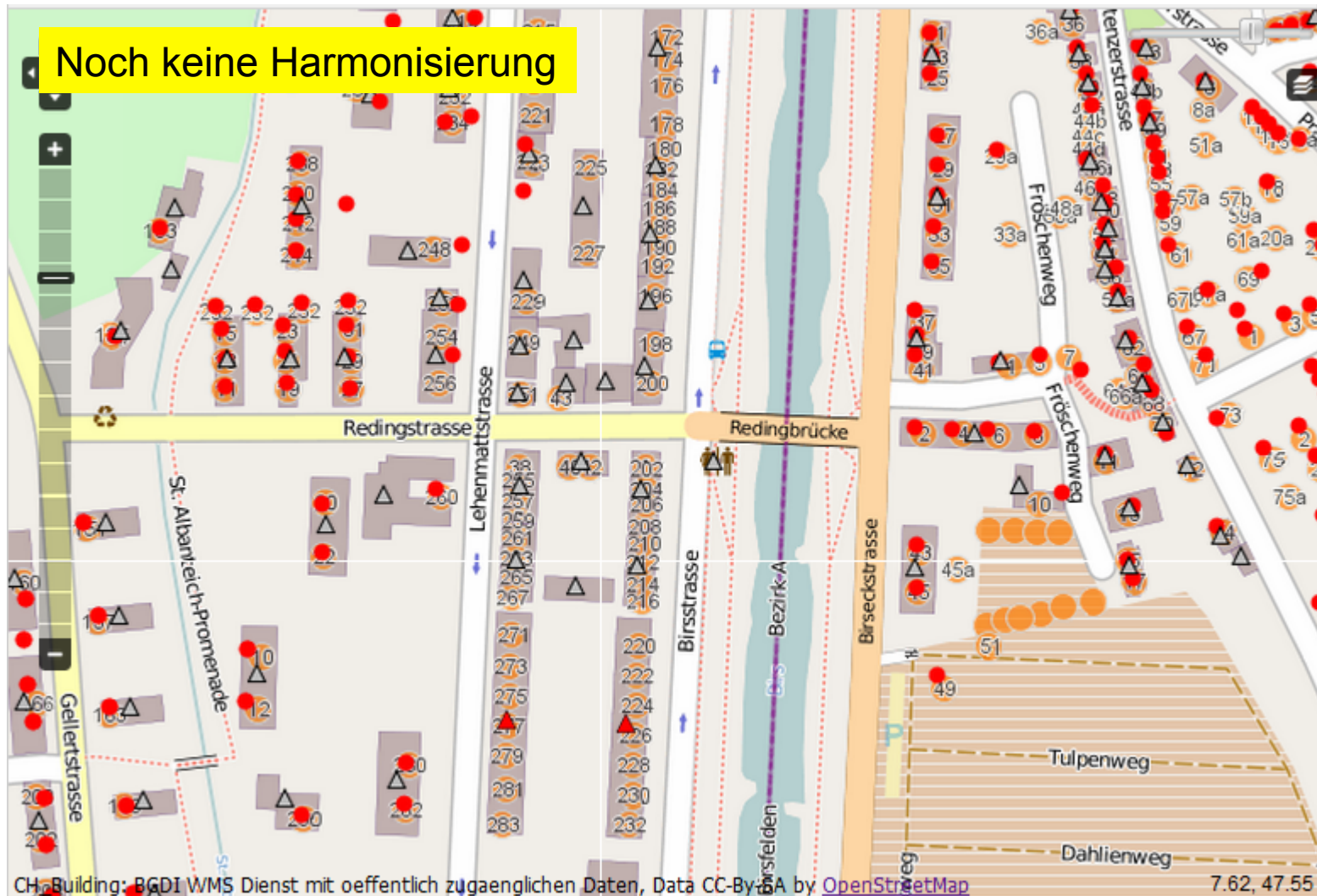


- 1 OA Benutzeraufruf
- 2 Bezug OA-Daten und aktualisieren
- 3 OA-Daten mit OSM-Daten angereichert an OSM-DB
- 4 Rückgabe neuer Versionsnummer

- A** OSM Benutzeraufruf
- B** Bezug OSM-Daten und versionsgeprüfte Aktualisierung
- C** jede Stunde Bezug von OSM-Datendifferenzen
- D** neue Version in OA aufbereiten

OpenAddresses OSM Sync

Noch keine Harmonisierung





OpenAddresses

Fazit:

- OA soll OSM als einfaches GUI für die Adressdatenerfassung dienen
- OA bietet erweiterte Möglichkeiten für QA
- OA offeriert gute Dienste für Geokodierung (improvements still in progress...)
- tbd: OSM-OA Harmonisierung (Datenbestand)

Diskussion

Besten Dank für Ihre Aufmerksamkeit!

Try it out: **<http://176.9.98.116:4000>**

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