

QGIS Web Client 2

@PirminKalberer
Sourcepole, Zurich, Switzerland
www.sourcepole.com





QGIS Web Client

- WMS based WebGIS client for desktop and mobile devices
- Optimized for QGIS specific WMS extensions





- Publish QGIS Desktop projects as WMS, WFS and WCS
- Initiated 2006 at the Institute of Cartography, ETH Zurich
- Part of the QGIS codebase since 2010
- C++, FCGI application
- Backend for QGIS Web Client and QGIS Cloud

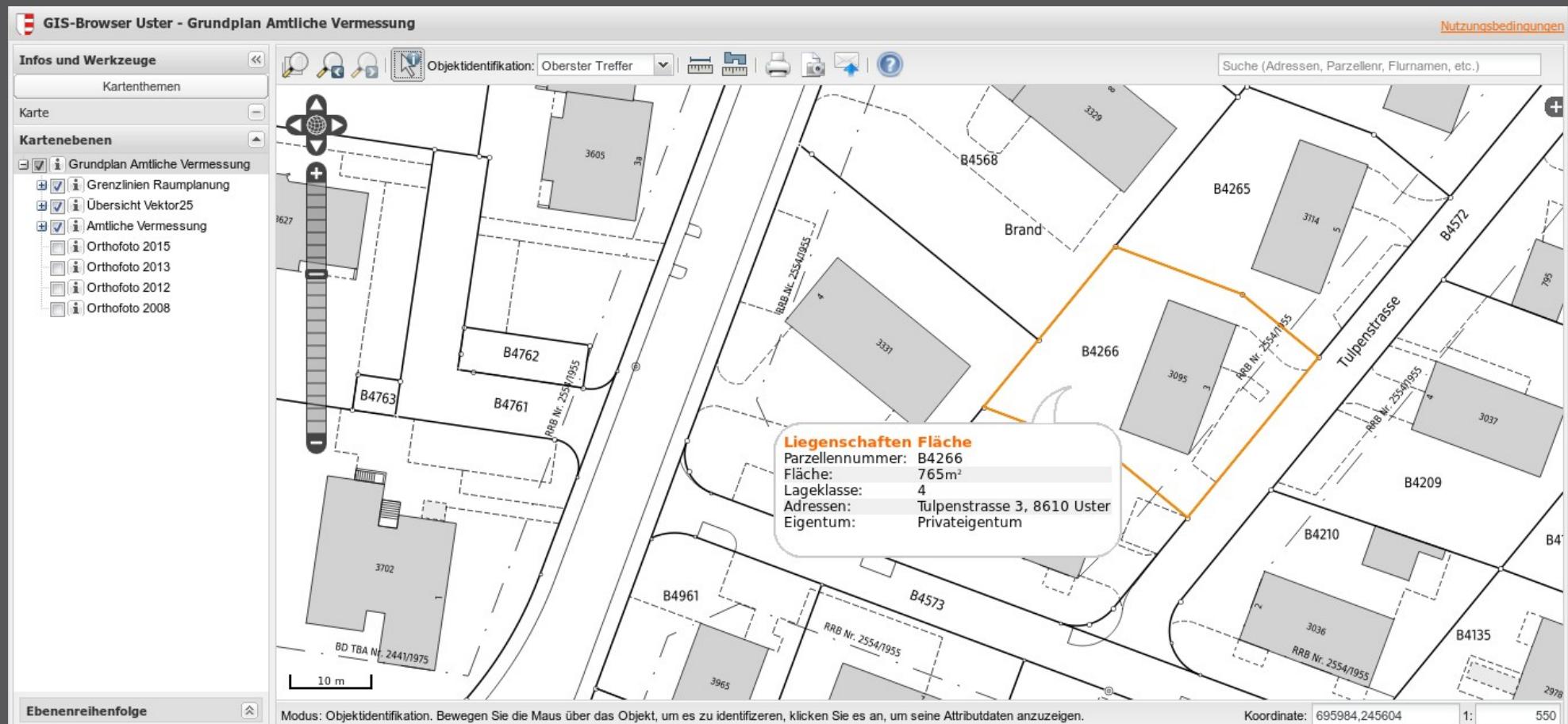


OGIS Server features

- **Easy configuration of projects in QGIS Desktop**
- **Symbology and labeling in sync with QGIS Desktop (same rendering engine)**
- **Provides additional configuration information (GetProjectSettings)**
- **PDF printing based on QGIS project**
- **Filter and Selection commands**
- **GetLegendGraphics extensions**



› QWC1, introduced in Uster in 2009





QGIS Web Client 2

- **Difficulties with QWC1:**
 - Non-responsive, old-fashioned interface
 - Interface too complex for many users
 - Uses obsolete libraries
 - Non-modular code base
- **Next generation QGIS Web Client: QWC2**
 - Modern, responsive interface
 - Focus on usability
 - Modular code base
 - State-of-the art technology: ReactJS, OpenLayers 4



OGIS Web Client 2





OGIS Web Client 2

The screenshot displays the OGIS Web Client 2 interface. At the top left is the kanton glarus geodatenviewer logo. A search bar at the top center contains the placeholder text "Adressen, Flurnamen, Grundstücke, Koordinaten...". Below the search bar is a map showing terrain and place names like "Natal". On the left, a smartphone icon represents a mobile view, showing the same map and search bar. To the right of the map is a vertical toolbar titled "Karten & Werkzeuge" with the following items:

- Kartenthema auswählen
- Kartenebenen zusammenstellen
- Karten-Link erstellen und teilen
- PDF-Karte oder Rasterbild drucken
- Kartenwerkzeuge
- Hilfe, Dokumentation, Impressum

A green callout box highlights the "Werkzeuge" section with the text: "Die einzelnen Werkzeuge werden wie bisher als frei schwebende Panels geöffnet oder nach unten aufgeklappt". Another green callout box highlights the "Hintergrundkarten" section with the following list:

- kein Hintergrund
- Luftbild (Orthofoto)
- farbige Karte
- Graustufenkarte

At the bottom of the interface, there are several small icons for zooming and navigating, a scale bar indicating "2 km", and a coordinate display "Koordinaten [m]: 2713353 / 1210363". The bottom right corner includes links for "Geoportal Kanton GL" and "Nutzungsbedingungen".



QGIS Web Client 2

- **Core functionality, implemented as plugins:**
 - Theme (project) browser
 - Layer tree
 - Feature info
 - Search with configurable providers
 - Measure tools
 - Basic sketching functionality
 - Permalink generation
 - PDF-Print
 - Screenshot
- **Extensible!**



QWC2 architecture

- **MapStore 2 components**
 - ReactJS + Redux
 - OpenLayers 4
- **Build tool chain: nodejs / yarn / webpack**
 - QWC2 demo application
- **QGIS Server**
- **Optional: server side components for search and permalink**



Why React?

- Component based
- View centric
- Concepts are easy to grasp
- Performance optimized (shadow DOM)
- Tooling (Dev-Tools, Minification, ...)
- For details see FOSS4G 2015 talk



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 Demo



QGIS Web Client 2

- **Source code and issue tracker**
 - <https://github.com/qgis/qwc2-demo-app>
 - <https://github.com/qgis/qwc2>
- **Examples:**
 - <https://services.geo.zg.ch/qwc2>
 - <http://qgiscloud.com>



Planned features in 2017

- › **Digitizing / Editing**
- › **Layer reordering**
- › **Height profiles**
- › **Embedding user defined WMS, WFS and KML**
- › **User specific viewer settings**
- › **Map comparison**
- › ...



Project partners

- **Initial sponsors**
 - City of Uster (Switzerland)
 - Canton Glarus (Switzerland)
 - City of Wolfsburg (Germany)
 - City of Kristianstad (Sweden)
- **Contracted Companies**
 - Sourcepole (Switzerland)
 - Invit (Sweden)

Questions? Thank you!



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