# Test protocol for a SW216 commercial solution

## Version: 1.1 - 12.10.2021

## About this document

Present test protocol is the initial step of the procedure to get an eCH-0216-based commercial solution certified by the Federal Statistical Office.

Please date and sign it when successfully completed. Then return it to andre.quan@bfs.admin.ch with required documentation:

## About the software

Editor:                                          \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of solution and version:    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Test municipality:                         \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Displayed attributes per object

Following attributes must be displayed in the user interface. Please provide screenshots.
If not implemented, note N/A.

|  |  |  |
| --- | --- | --- |
| **Object** | **Field** | **OK** |
| **Street** | Eidgenössischer Strassenidentifikator - ESID |  |
| Realisierungsstand der Strasse - Street status SREAL |  |
| Art der Strasse - Kind of localization STRART |  |
| Strassenbezeichnung offiziell - Official status flag STROFFIZIEL |  |
| Amtliche Strassennummer - Official street number STRANR |  |
| Strassenbezeichnung - Long name STRNAME |  |
| Strassenbezeichnung kurz - Short name STRNAMK |  |
| Strassenbezeichnung Index - Index STRINDX |  |
| Strassenbezeichnung Sprache - Language STRSP |  |
| Postleitzahl - Routing postal number plz4 |  |
| Postleitzahl-Zusatzziffer - Extension of routing postal number plzz |  |
| Ortschaft - Locality short name |  |
| **Building entrance** | Eidgenössischer Gebäudeidentifikator - EGID |  |
| Eidgenössischer Eingangsidentifikator - EDID |  |
| Eidgenössischer Gebäudeadressidentifikator - EGAID |  |
| Strassenbezeichnung kurz -Street short name STRNAMK |  |
| Eingangsnummer Gebäude - Building entrance number DEINR |  |
| Postleitzahl - Routing postal number DPLZ4 |  |
| Postleitzahl-Zusatzziffer - Extension of routing postal number DPLZZ |  |
| Ortschaft - Locality short name |  |
| Offizielle Adresse - Official address flag DOFFADR |  |
| E- N-Eingangskoordinate - Coordinates DKODE – DKODN (read only) |  |
| Other ID (canton, externalApp) |  |
| **Dwelling** | Eidgenössischer Gebäudeidentifikator - EGID |  |
| Eidgenössischer Eingangsidentifikator - EDID |  |
| Eidgenössischer Wohnungsidentifikator - EWID |  |
| Administrative Wohnungsnummer - Administrative number WHGNR |  |
| Physische Wohnungsnummer - Physical number WEINR |  |
| Stockwerk - Floor WSTWK |  |
| Mehrgeschossige Wohnung - Multiple floor flag WMEHRG |  |
| Lage auf dem Stockwerk - Location on floor WBEZ |  |
| Anzahl Zimmer - Number of habitable rooms WAZIM |  |
| Kocheinrichtung - Kitchen flag WKCHE |  |
| Wohnungsfläche - Area of dwelling in m2 WAREA |  |
| Wohnungsstatus - Status WSTAT |  |
| Baujahr der Wohnung - Year of construction WBAUJ |  |
| Abbruchjahr der Wohnung - Year of demolition WABBJ |  |
| Nutzungsart der Wohnung - Dwelling usage WNART |  |
| Informationsquelle zur Nutzungsart - Information source WNARTSCE |  |
| Aktualisierungsdatum der Nutzungsart - Revision date WNARTDAT |  |
| Person with main residence WPERSHW (read only) |  |
| Person with secondary residence WPERSNW (read only) |  |
| Date first occupancy WERSTBELEGDAT (read only) |  |
| Date last occupancy WLEZTBELEGDAT (read only) |  |
| Nutzungsbeschränkung gemäss ZWG - Usage limitation WGBANMERKUNG |  |
| Freitextfeld Wohnung 1 - Free text 1 WFREITXT1 |  |
| Freitextfeld Wohnung 2 - Free text 2 WFREITXT2 |  |
| Other ID (canton, municipal, externalApp) |  |
| **Building** | EGID |  |
| Amtliche Gebäudenummer - Official building Number GEBNR |  |
| Gebäudekategorie - Category GKAT |  |
| Gebäudeklasse - Class GKLAS |  |
| BFS-Gemeindenummer - Municipality GGDENR |  |
| Grundstücksnummer - Lot number LPARZ |  |
| Grundbuchkreisnummer - Land register circle LGBKR |  |
| EGRID |  |
| E-, N-Gebäudekoordinate - Coordinates GKODE - GKODN |  |
| Quartier - Neighbourhood GQUART |  |
| Gebäudestatus - Status GSTAT |  |
| Baujahr des Gebäudes - Year of construction GBAUJ |  |
| Baumonat des Gebäudes - Month of construction GBAUM |  |
| Abbruchjahr des Gebäudes - Year of demolition GABBJ |  |
| Name des Gebäudes - Name of building GBEZ |  |
| Anzahl Geschosse - Number of floors GASTW |  |
| Anzahl separate Wohnräume - Number of separate habitable rooms GAZZI |  |
| Zivilschutzraum - Civil defense shelter GSCHUTZR |  |
| Gebäudefläche - Surface of building GAREA |  |
| Gebäudevolumen - Volume GVOL |  |
| Informationsquelle zum Gebäudevolumen - Volume information source GVOLSCE |  |
| Gebäudevolumen: Norm - Volume norm GVOLNORM |  |
| Energiebezugsfläche - Energy relevant surface GEBF |  |
| Wärmeerzeuger Heizung - Thermotechnical device for heating 1 GWAERZH1 |  |
| Energie-/Wärmequelle Heizung - Energy source GENH1 |  |
| Informationsquelle Heizung - Information source GWAERSCEH1 |  |
| Aktualisierungsdatum Heizung - Revision date GWAERDATH1 |  |
| Thermotechnical device for warm water 1 GWAERZW1 |  |
| Energy source GENW1 |  |
| Information source GWAERSCEW1 |  |
| Revision date GWAERDATW1 |  |
| Thermotechnical device for heating 2 GWAERZH2 |  |
| Energy source GENH2 |  |
| Information source GWAERSCEH2 |  |
| Revision date GWAERDATH2 |  |
| Thermotechnical device for warm water 2 GWAERZW2 |  |
| Energy source GENW2 |  |
| Information source GWAERSCEW2 |  |
| Revision date GWAERDATW2 |  |
| Local Code 1 GLOC1 |  |
| Local Code 2 GLOC2 |  |
| Local Code 3 GLOC3 |  |
| Local Code 4 GLOC4 |  |
| Free text 1 GFREITXT1 |  |
| Free text 2 GFREITXT2 |  |
| Other ID (insurance, canton, 1990Census, taxAssessment, municipal, 2000Census, cadastreSurvey, externalApp) |  |
| **Construction project** | EPROID |  |
| Erhebungsstellennummer - Construction survey department PESTNR (may be implicit) |  |
| Amtliche Baudossiernummer - Official construction project file number PBDNR |  |
| Amtliche Baudossiernummer Zusatz - Official construction project file number extension PBDNRSX |  |
| Umschreibung Bauprojekt - Description PBEZ |  |
| Datum Baueingabe - Project announcement date PDATIN |  |
| Datum Baubewilligung - Building permit issue date PDATOK |  |
| Datum Baubeginn - Project start date PDATBB |  |
| Duration of construction phase PVBD |  |
| Datum Bauende - Project completion date PDATBE |  |
| Datum Sistierung - Project suspension date PDATSIST |  |
| Project permission refused date PDATABL |  |
| Project cancellation date PDATANN |  |
| Project withdrawal date PDATZRG |  |
| Status PSTAT |  |
| Type of construction project PARTBW |  |
| Type of construction PTYPBW |  |
| Total cost PKOST |  |
| Construction localisation PGDENR |  |
| Lot number LPARZ |  |
| Land register circle LGBKR |  |
| EGRID |  |
| Type of permit PARTBZ |  |
| Type of client PTYPAG |  |
| Project free text 1 PFREITXT1 |  |
| Project free text 2 PFRETXT2 |  |
| **Work** | ARBID |  |
| Kind of work PARTAB |  |
| Energetic restauration flag PENSAN |  |
| Renovation heating system flag PHEIZSAN |  |
| Inner transformation / renovation flag PINNUMB |  |
| Usage conversion flag PUMNUTZ |  |
| Heated extension or elevation flag PERWMHZ |  |
| Not heated extension or elevation flag PERWOHZ |  |
| Thermic solar plant flag PTHERSOL |  |
| Photovoltaic solar plant flag PPHOTSOL |  |
| Other Work flag PANDUMB |  |
| **Archived construction project** | EPROID |  |
| Construction survey department PESTNR (may be implicit) |  |
| Official construction project file number PBDNRSX |  |
| Official construction project file number extension PBDNRSX |  |
| Description PBEZ |  |
| EGRID |  |
| Land register circle LGBKR |  |
| Lot number LPARZ |  |
| Status PSTAT |  |

## Searchable attributes per object

The user interface must make following attributes available for searches. Please provide screenshots of search interfaces.

If the search interface does not list criteria in that way, please describe how it has been implemented (replace the table below by a description).

|  |  |  |
| --- | --- | --- |
| **Object** | **Search criteria** | **OK** |
| **Street** | ESID |  |
| Long name STRNAME |  |
| Short name STRNAMK |  |
| Index STRINDX |  |
| Language STRSP |  |
| Municipality (may be implici) |  |
| Official status flag STROFFIZIEL |  |
| Street status SREAL |  |
| Kind of localization STRART |  |
| Official street number STRANR |  |
| Routing postal number and extension plz4 plzz |  |
| Locality short name |  |
| **Building entrance** | EGID |  |
| EDID |  |
| Other ID (canton, externalApp) |  |
| EGAID |  |
| Street short name STRNAMK |  |
| Building entrance number DEINR |  |
| Routing postal number DPLZ4 |  |
| Extension of routing postal number DPLZZ |  |
| Date of creation / range of dates |  |
| Date of modification / range of dates |  |
| Having error messages |  |
| **Dwelling** | EGID |  |
| EWID |  |
| Other ID (canton, municipal, externalApp) |  |
| EPROID (dwelling(s) linked to a construction project) |  |
| Street short name STRNAMK |  |
| Building entrance number DEINR |  |
| Routing postal number DPLZ4 |  |
| Extension of routing postal number DPLZZ |  |
| Date of creation / range of dates |  |
| Date of modification / range of dates |  |
| Having error messages |  |
| **Building** | EGID |  |
| Other ID (insurance, canton, 1990Census, taxAssessment, municipal, 2000Census, cadastreSurvey, externalApp) |  |
| EPROID (building(s) linked to a construction project |  |
| Street short name STRNAMK |  |
| Building entrance number DEINR |  |
| Routing postal number DPLZ4 |  |
| Extension of routing postal number DPLZZ |  |
| EGRID |  |
| Lot number LPARZ |  |
| Land register circle LGBKR |  |
| Official building number GEBNR |  |
| Year of construction GBAUJ |  |
| Date of creation / range of dates |  |
| Date of modification / range of dates |  |
| Having error messages |  |
| **Construction project** | EPROID |  |
| Other ID (externalApp) |  |
| Construction survey department (may be implicit) |  |
| PSTAT status |  |
| EGRID |  |
| Land register circle LGBKR |  |
| Lot number LPARZ |  |
| Date of creation / range of dates |  |
| Date of modification / range of dates |  |
| Having error messages |  |
| **Archived construction project** | Construction survey department (may be implicit) |  |
| Date of archiving / range of dates |  |

## Automatisms

Are any updates of characters based on an automated logic ?

* Yes
* No

If yes, please provide a list and a description of applied logic.

## Embeded map

If addStreet has been implemented, please provide a screen shot of the embedded map.

**Please note: any new street in Switzerland must mandatorily be drawn and created in the Swisstopo digital map API. If addStreet is not implemented, that digital map is available in the Web Application of the FRBD and can be used by the municipality. It requires a different user profile, therefore another user than the one used to update the FRBD via its eCH-0216 Web services.**

## No input fields for building entrance coordinates

* We have not implemented any input fields for building entrance coordinates.

## No getdeactivated<object> implemented in the GUI

* We have not implemented getDeactivatedConstructionProject, -Buildings, -BuildingEntrances, -Dwellings, -Streets in our GUI

## Inactive object response

* Should an inactive object be retrieved by a request, the response displayed to the end user is always translated from "object is inactive" to "object does not exist".

## Update municipal maintenance costs

|  |  |  |
| --- | --- | --- |
| **Action: enter following municipal maintenance costs** | **Expected Result (request a screenshot of the Web application from the FSO)** | **OK** |
| Municipal administration | Previous year | Current year | Previous year | Current year |  |
| Streets costs | **2001000** | **2101000** | **2001000** | **2101000** |  |
| Civil engineering costs | **2002000** | **2102000** | **2002000** | **2102000** |  |
| Structural engineering costs | **2003000** | **2103000** | **2003000** | **2103000** |  |
| Municipal enterprise |  |  |  |  |  |
| Streets costs |  **2004000** | **2104000** |  **2004000** | **2104000** |  |
| Civil engineering costs |  **2005000** | **2105000** |  **2005000** | **2105000** |  |
| Structural engineering costs |  **2006000** | **2106000** |  **2006000** | **2106000** |  |

## Construction survey activity scenario

1. Trigger construction survey department’s data quality check
(checkQuarterlySurveyDept).

The survey dept number is returned, eventually along with a list of FRBD error messages

1. Trigger the closure of the quarterly survey on the construction
survey department (closeQuarterlySurvey).

“FRBD quarterly closure has been triggered. It may take some time." is returned

1. Request the construction survey department’s quarterly survey
closure status (getProgressStatusQuarterlyClosure). Code 620,

Erhebungsstelle wird aufgefordert Abschluss zu machen
Service d'enquête avisé de la clôture à faire
Servizio di rilevazione avvisato

630,
Abschluss durch die Erhebungsstelle mit Fehler
Clôture faite par le service d'enquête avec erreurs
Chiusura dal servizio di rilevazione con errori

or 660
Abschluss durch die Erhebungsstelle
Clôture par le service d'enquête
Chiusura dal servizio di rilevazione

is displayed

1. Search for a construction project, then trigger a data quality testing
on it (checkConstructionProject). The list of FRBD error messages is displayed
2. Search for a building, then trigger a data quality testing on it
(checkBuilding). The list of FRBD error messages is displayed
3. Add a new construction project (addConstructionProject):

constructionSurveyDept: **<**your construction survey dept**>**

constructionProjectDescription: **\_\_\_\_\_ UTF8 OK: çêéèöüäà d' n' l'**

typeOfConstructionProject: **6011**

projectAnnouncementDate: **\_\_\_\_\_\_\_\_\_\_**

EGRID: **CH\_\_\_\_\_\_\_\_\_\_**

Number (Parzelle): **\_\_\_\_\_\_\_\_\_\_**

Subdistrict (Grundbuchkreis): **\_\_\_\_\_\_\_\_\_\_** (if required)

officialConstructionProjectFileNo: **\_\_\_\_\_\_\_\_\_\_**

extensionOfOfficialConstructionProjectFileNo: **\_\_\_\_\_\_\_\_\_\_**

typeOfPermit: **\_\_\_\_\_\_\_\_\_\_**

typeOfClient: **\_\_\_\_\_\_\_\_\_\_**

totalCostsOfProject: **\_\_\_\_\_\_\_\_\_\_**

projectFreeText1: **\_\_\_\_\_\_\_\_\_\_**

projectFreeText2: **\_\_\_\_\_\_\_\_\_\_**

**Work**: **6001 – new construction**

Building 1: a new multiple dwellings building

nameOfBuilding: **New Housing Building**

entrance 0

3 dwellings (EWID 1 to 3)

entrance 1

5 dwellings (EWID 4 to 8)

**Work**: **6001 – new construction**

Building 2: a new garage

nameOfBuilding: **New Garage**

then search the construction project by its EPROID
(getConstructionProjectById)

A new construction project is saved in the FRBD, 2 projected buildings. One with two entrances and 8 dwellings,

 one without dwelling.

1. Search an existing building, then link it to the construction project,
with a **transformation** work, and a work description "**internal
renovation**" (bindBuildingToConstructionProject).

The building is referred to as BT1 further in this test protocol.

Search the construction project by its EPROID. An internal renovation transformation work has been added to the construction project and links the building BT1 to it.

1. Add a projected dwelling to BT1 (addDwellingToConstruction
Project, characteristics of your choice).

The dwelling is referred to as DWBT1 further in this test protocol.

Search the construction project by its EPROID. Building BT1 has a projected dwelling.

Each entered value of the dwelling is stored as entered.

1. Search an existing building, then link it to the construction project,
with a **transformation** work, and kinds of work "**internal
renovation**" + "**energy renovation**".

The building is referred to as BT2 further in this test protocol.

Search the construction project by its EPROID. An internal renovation and energy renovation transformation work has been added to the construction project and links the building BT2 to it.

1. Search an existing building, then link it to the construction project,
with a **transformation** work, and kinds of work "**photovoltaic
solar system**" + "**energy renovation**" (getBuildings).

The building is referred to as BT3 further in this test protocol.

Search the construction project by its EPROID. A photovoltaic solar system transformation work has been added to the construction project and links the building BT3 to it.

1. Modify the work description of BT2, add a work description
“**photovoltaic solar system**”

Search the construction project by its EPROID.

A photovoltaic solar system work description has been added to the transformation work.

1. Search an existing building, then link it to the construction project,
with a **demolition**work, select “conversion” as a work description.

 That operation is not possible. No work description of any kind can be selected and sent by the user for a demolition work.

1. Search an existing building, then link it to the construction project,
with a **demolition**work.

The building is referred to as BD1 further in this test protocol.

Search the construction project by its EPROID. A demolition work has been added to the construction project and links the building BD1 to it.

1. Search an existing building, then link it to the construction project,
with a **demolition**work.

The building is referred to as BD2 further in this test protocol.

Search the construction project by its EPROID. A demolition work has been added to the construction project and links the building BD2 to it.

1. Add a building to be built, to the construction project
(addBuildingToConstructionProject).

Search the construction project by its EPROID. A third building to be built is linked to the construction project.

All values of its characteristics are stored as entered.

1. In **New Housing Building**, reassign the dwelling with EWID 4 to entrance
EDID 0, instead of EDID 1 (reallocateDwelling).

Search New Housing Building by its EGID. Dwelling with EWID 4 is linked to entrance with EDID 0.

1. In **New Housing Building**, attempt to deactivate any one of its dwellings
(deactivateDwelling)

 The instruction "Your deactivation request has been registered by theFSO. The business support team will examine it and, if necessary, contact you. Phone: 0800 866 600 E-mail: housing-stat@bfs.admin.ch" is returned, eventually translated in the user's language.

1. **BD2** actually will not be demolished during this project.

Detach building **BD2** from the construction project (unbindToCon
structionProject).

Search the construction project by its EPROID. The demolition work has been removed from the construction project and building BD2 has been detached from it.

1. Set the construction project to "approved" on date \_\_\_\_\_\_\_\_\_\_
(setToApprovedConstructionProject)

Search the construction project by its EPROID. Buildings and dwellings linked to the construction project are all "approved", the construction project itself is "approved".

The construction permit delivery date is stored as entered.

1. Freely apply modifications of your choice to the construction project
(modifyConstructionProject).

Search the construction project by its EPROID. All values of the modified characteristics are stored as entered.

1. Set the construction project to "construction started" (setToStart
Construction).

Search the construction project by its EPROID. The status of the construction project is "construction started".

1. Set **Test building1** and its dwellings to "construction started"
(setToBuildingConstructionStarted, setToStartConstructionDwelling).

Search the building by its EGID. The status of the building is "construction started".

1. Set **New Garage** to "construction started".

Search the building by its EGID. The status of the building is "construction started".

1. Set the construction project to "suspended" from date \_\_\_\_\_\_\_\_\_\_
(setToSuspendedConstructionProject)

Search the construction project by its EPROID. The status of the construction project is "suspended".

1. Set the construction project to "resumed" (setToCancelSuspension
ConstructionProject).

Search the construction project by its EPROID. The status of the construction project is "suspended".

1. Set the dwelling **DWBT1** to "construction started" (in building **BT1**).

Search the building **BT1** by its EGID. The status of the dwelling DWBT1 is "construction started"

1. Set **New Garage** to existent from date (YYYY.MM): \_\_\_\_\_\_\_ . \_\_\_\_
(setToCompletedBuilding)

Search New Garage by its EGID. The status of the building New Garage is "existent", the year of construction is stored as entered, the month of construction is stored as entered.

1. Set **New Housing Building** and its dwellings to "existent".
(setToCompletedBuilding, setToCompletedDwelling)

Search **New Housing Building** by its EGID. The status of the building New Housing Building is "existent", the status of all its dwellings is "existent".

1. Set the dwelling **DWBT1** to "existent" (in building **BT1**) on current year.

Search the building **BT1** by its EGID. The status of the dwelling DWBT1 is "existent", its building year is stored as entered.

1. Set building **BD1** to "demolished" on current year.
(setToDemolishedBuilding)

Search the building **BD1** by its EGID. The status of the building BD1 is "demolished", its demolition year is stored as entered.

1. Set the construction project to completed (setToCompleted
ConstructionProject).

Search the construction project by its EPROID. The status of the construction project is "completed".

1. Add a new construction project

constructionSurveyDept: <your construction survey dept>

constructionProjectDescription: \_\_\_\_\_\_\_\_\_\_ **(describe something like a road repair project)**

typeOfConstructionProject: **6010** (infrastructure)

projectAnnouncementDate: \_\_\_\_\_\_\_\_\_\_

officialConstructionProjectFileNo: **\_\_\_\_\_\_\_\_\_\_**

extensionOfOfficialConstructionProjectFileNo: \_\_\_\_\_\_\_\_\_\_

typeOfPermit: **\_\_\_\_\_\_\_\_\_\_**

typeOfClient: \_\_\_\_\_\_\_\_\_\_

totalCostsOfProject: \_\_\_\_\_\_\_\_\_\_

projectFreeText1: \_\_\_\_\_\_\_\_\_\_

projectFreeText2: \_\_\_\_\_\_\_\_\_\_

**work**: **6002 - transformation**

Search the construction project by its EPROID A new construction project is saved in the FRBD, without any building.

Each entered value is stored as entered.

1. Add a work 6001 - new construction to the project.

Search the construction project by its EPROID. An additional work is saved in relation to the construction project. It is a new construction.

1. Set the construction project to withdrawn (setToWithdrawn
ConstructionProject).

Search the construction project by its EPROID. The status of the construction project is "withdrawn".

## Tester

First name:                  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Last name:                   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

direct e-mail address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ direct phone number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:                           \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature:                    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_