

Smart Verification of Geodata

with Open Source Approach

VeriSO-BE

FIG 2014 Kuala Lumpur

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Switzerland

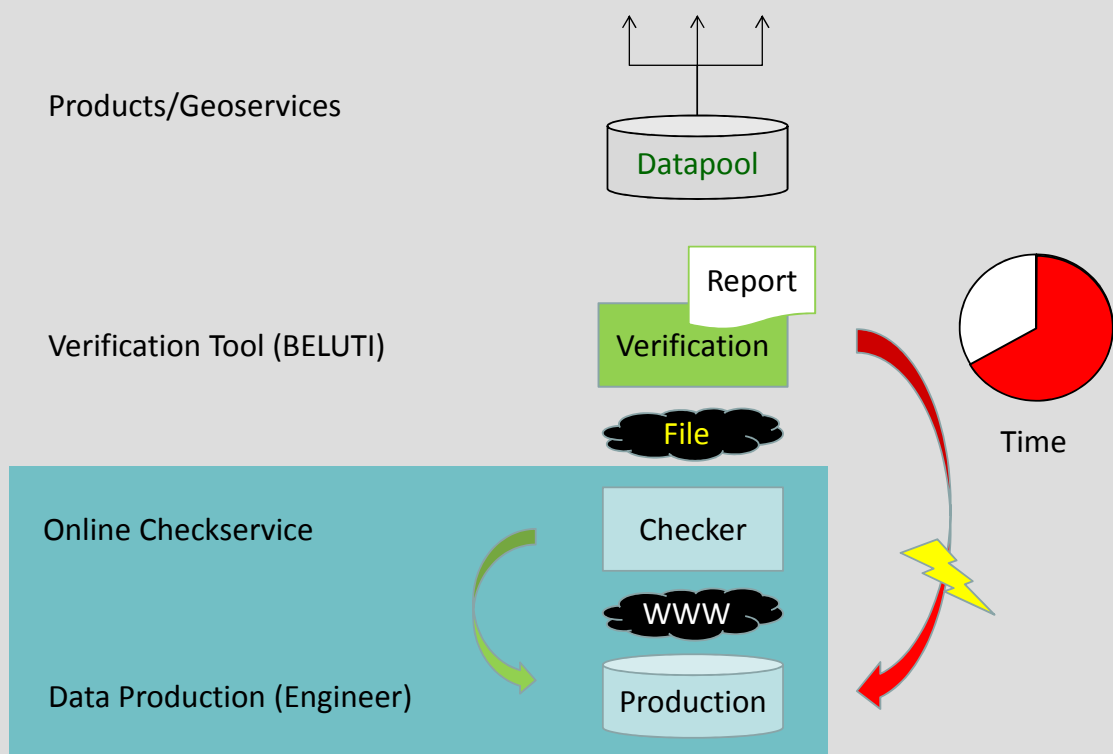
Agenda

1. Background VeriSO-BE
2. Our Mission
3. Engineering and Construction
4. Demo of VeriSO-BE
5. Benefit / Outlook
6. Questions

Background of VeriSO-BE

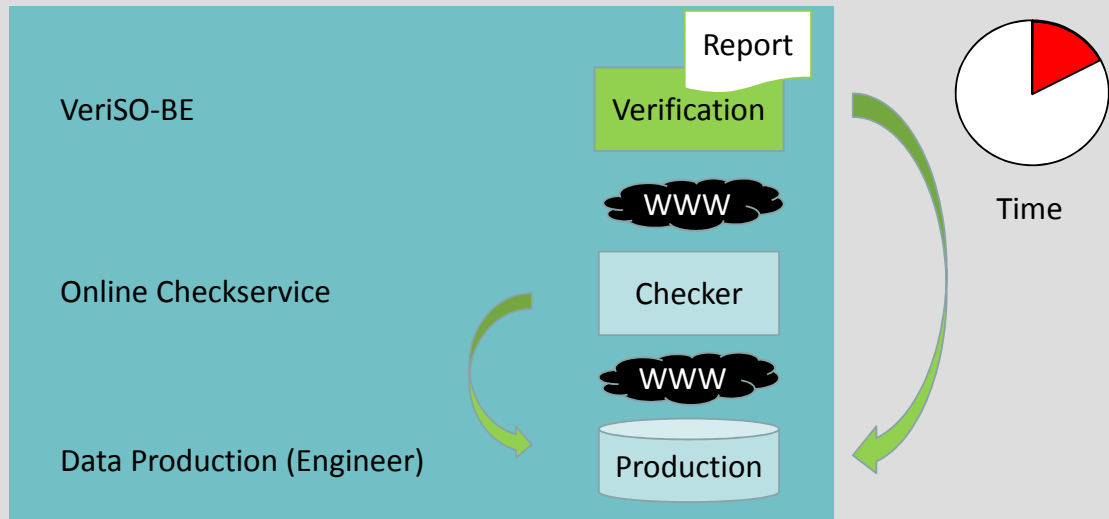
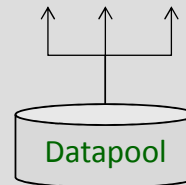
1. VeriSO is a Software based on QGIS
2. Developed by Stefan Ziegler, Office for Surveying Canton Solothurn (0,26 million inhabitants)
3. Adapted to Canton Bern by Nikolaus Grässle, Office for Surveying Canton Bern (1 million inhabitants)
4. LINUX, distributed as CD
5. Installed as virtual Harddisk by all 6 Producers in SO
6. In use since 2 years

Dataflow (today)



Dataflow with VeriSO-BE

Products/Geoservices



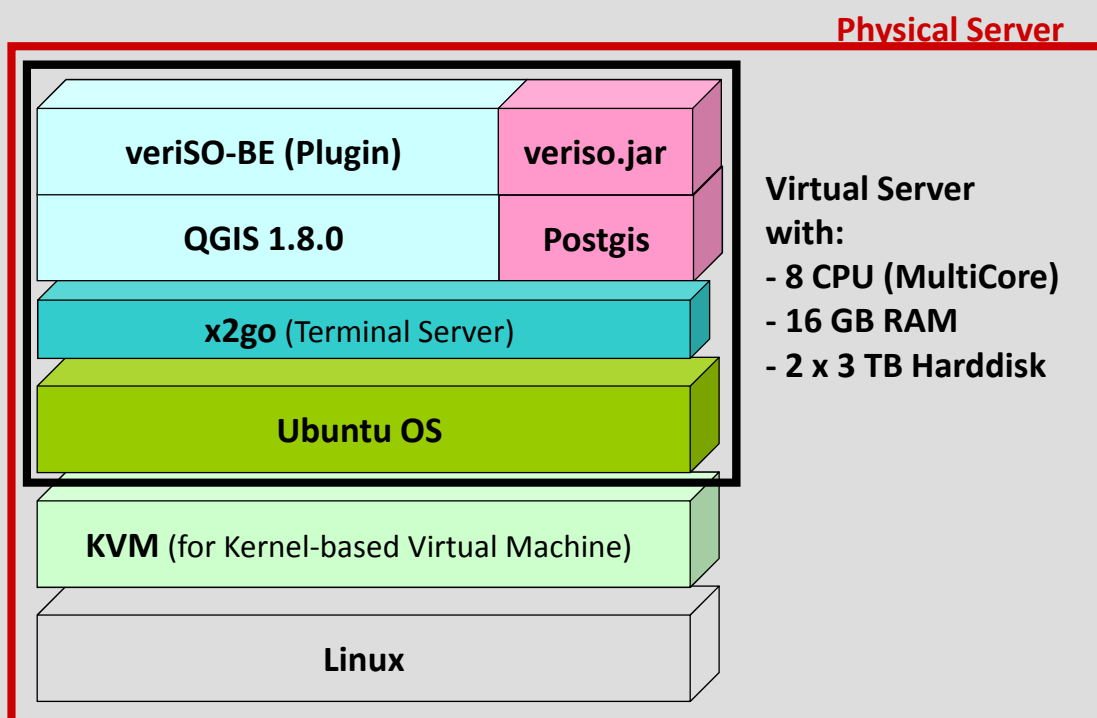
Goals of VeriSO-BE

1. Same verification tools for all
 - Requirements are known by producers
2. Intuitive operation, no additional training
3. VeriSO-BE offer the same functionality as BELUTI
 - or may be even better...
4. Verification report is done by producer of data
 - With his signature, he assumes the liability for the correctness
5. Must be extensible for other spatial data
6. Faster and cheaper

Our Mission

- Adapt VeriSO to VeriSO-BE, without CD
- Software as a service
- Implementation and operation of a test and production infrastructure with the software VeriSO-BE for INTERLIS data check for all Producers in BE
- Each user has own login and can access and test only his data

Infrastructure

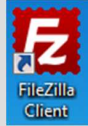


Connections to VeriSO-BE

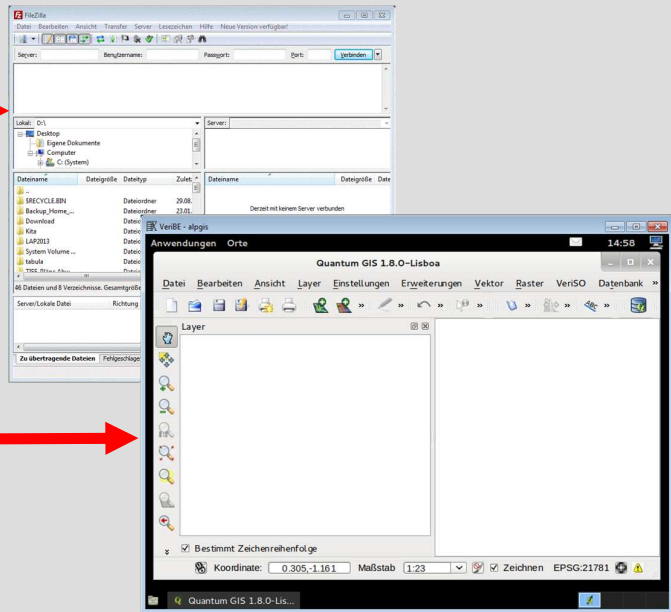
Client

Server

ili / itf FTP-upload

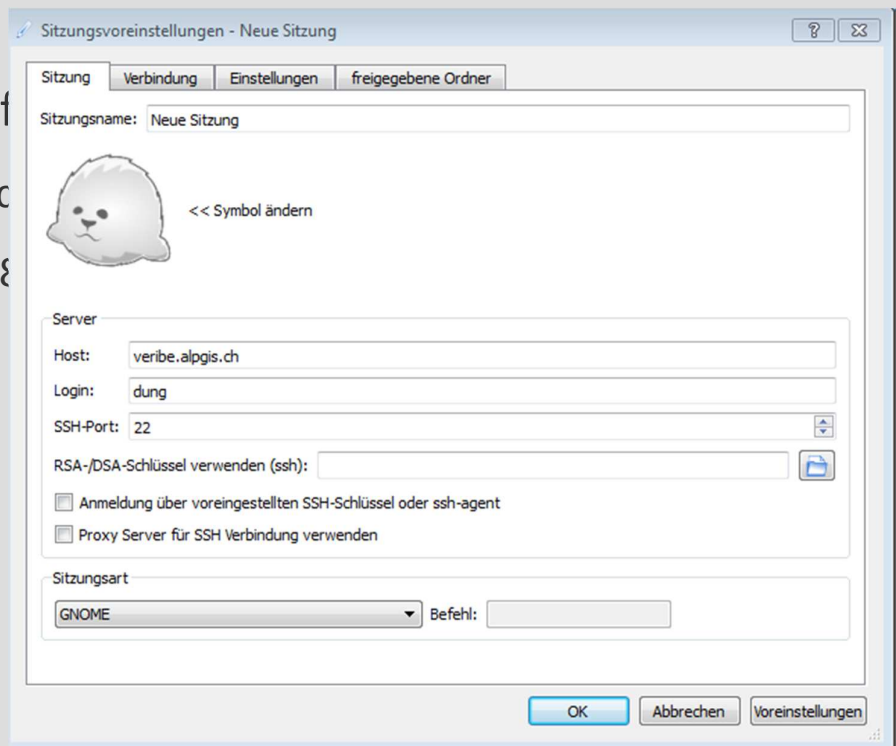


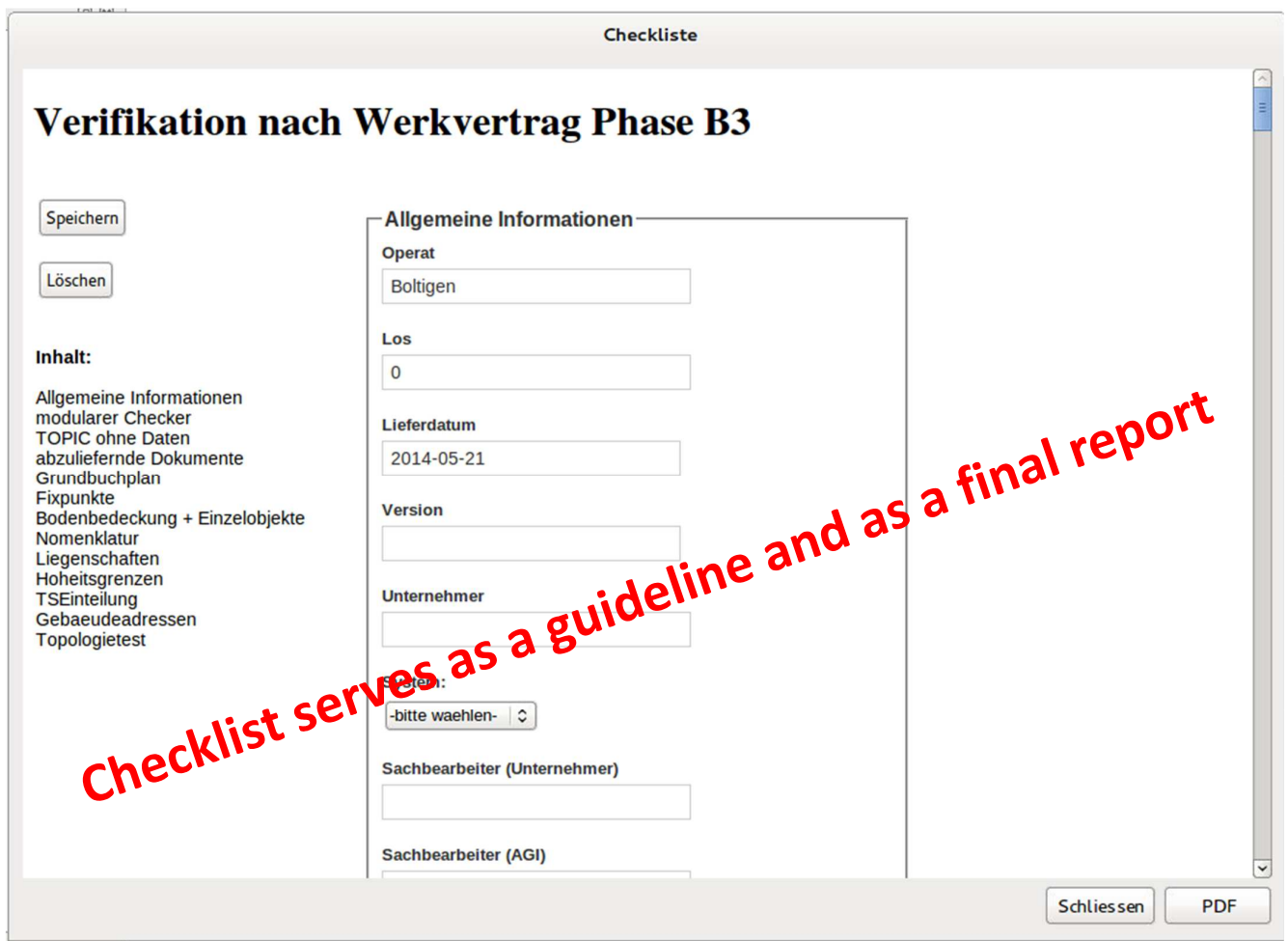
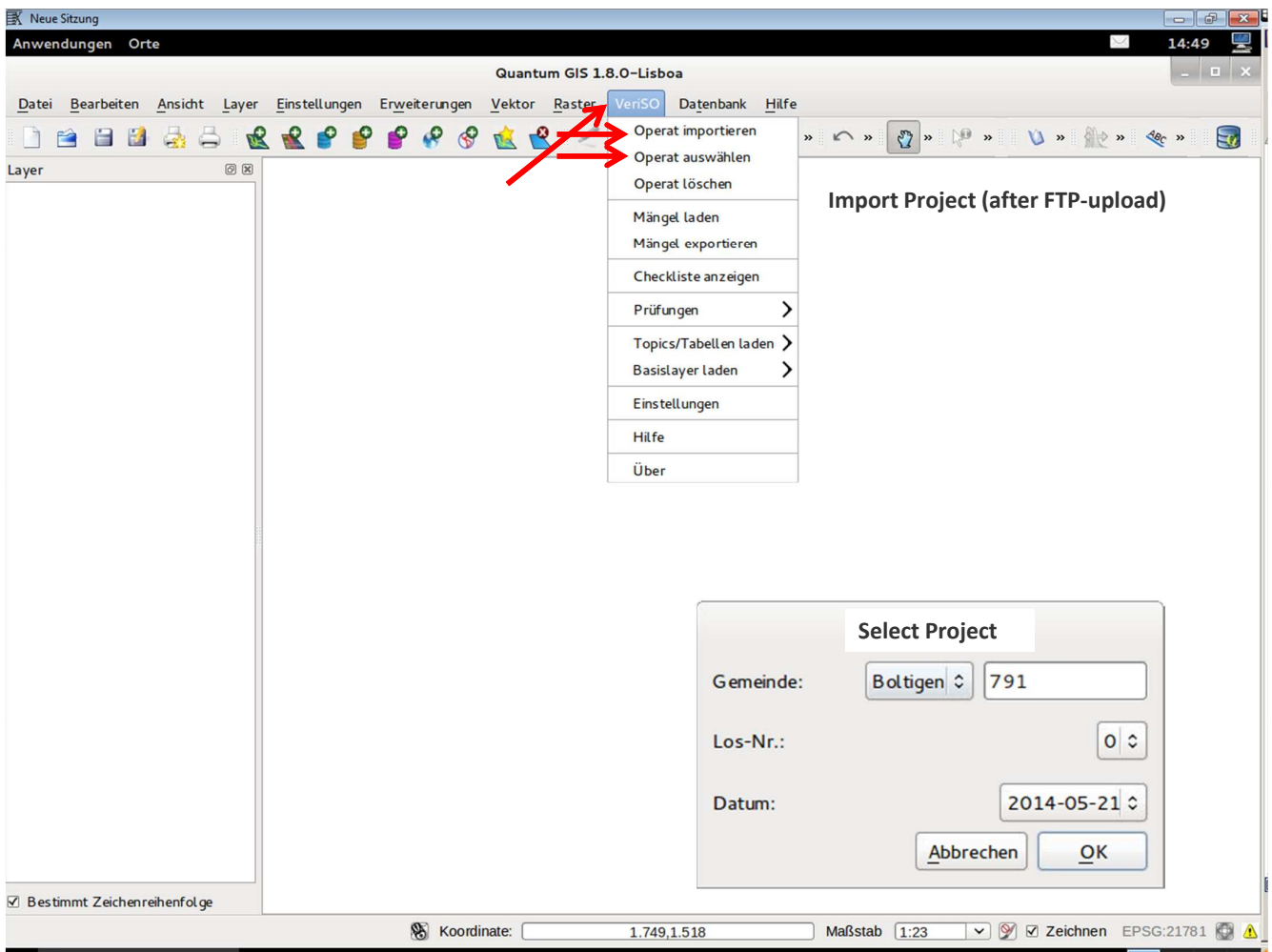
Online Acces

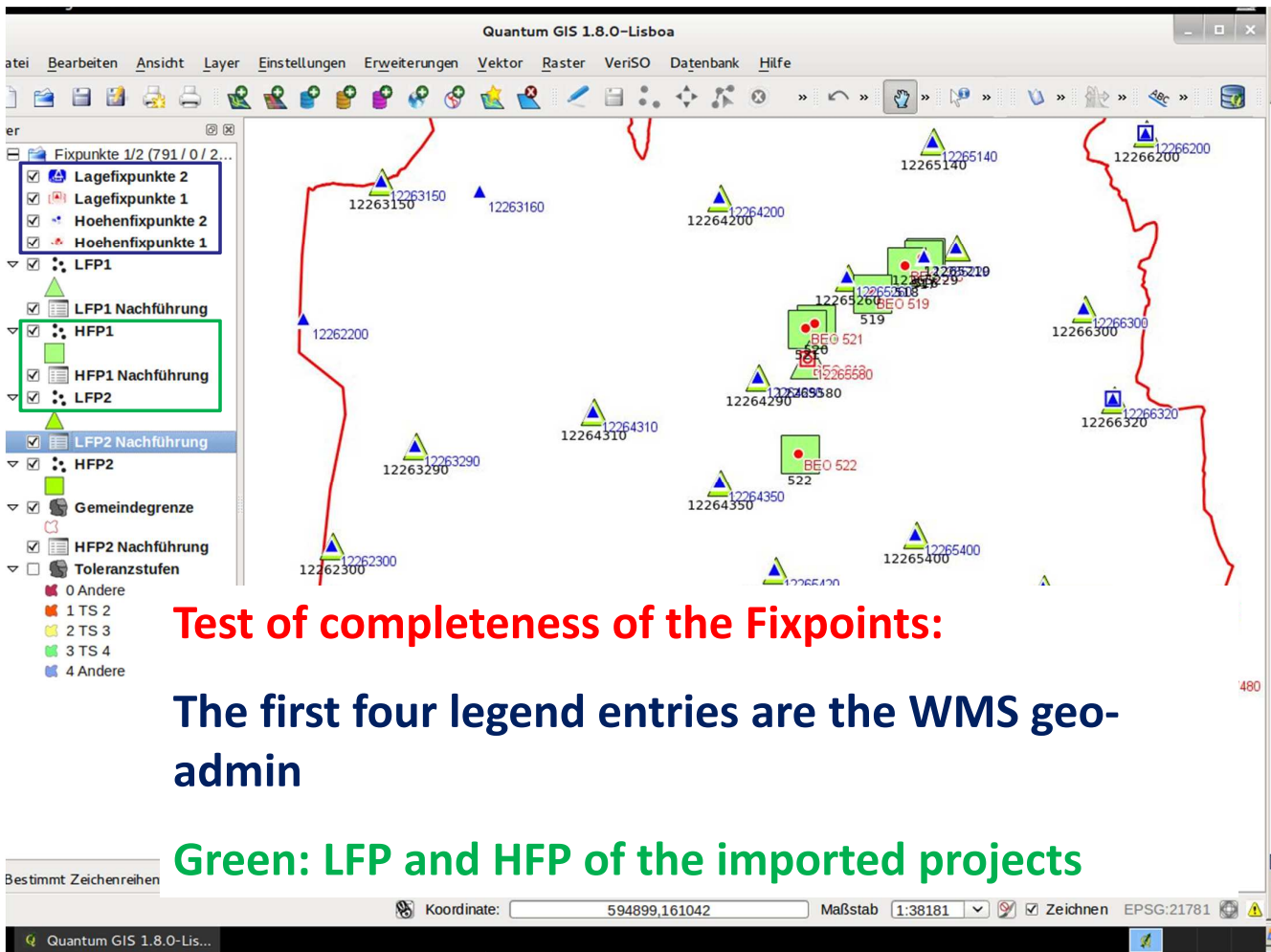


Demo VeriSO-BE

1. Installation of
 - Internet Account
 - .exe file, ~18MB
2. Start Session







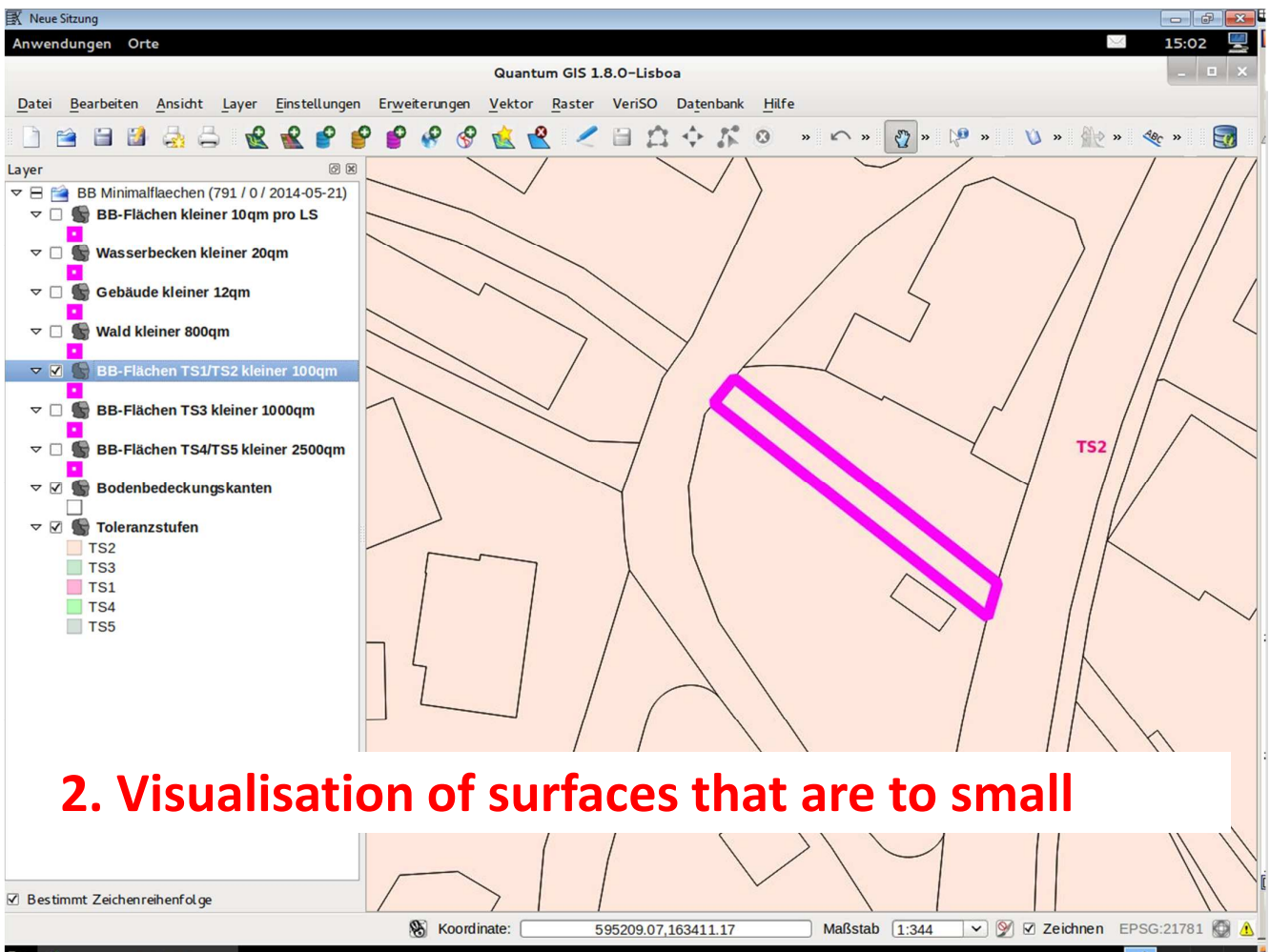
Test minimal surfaces:

1. List of all errors

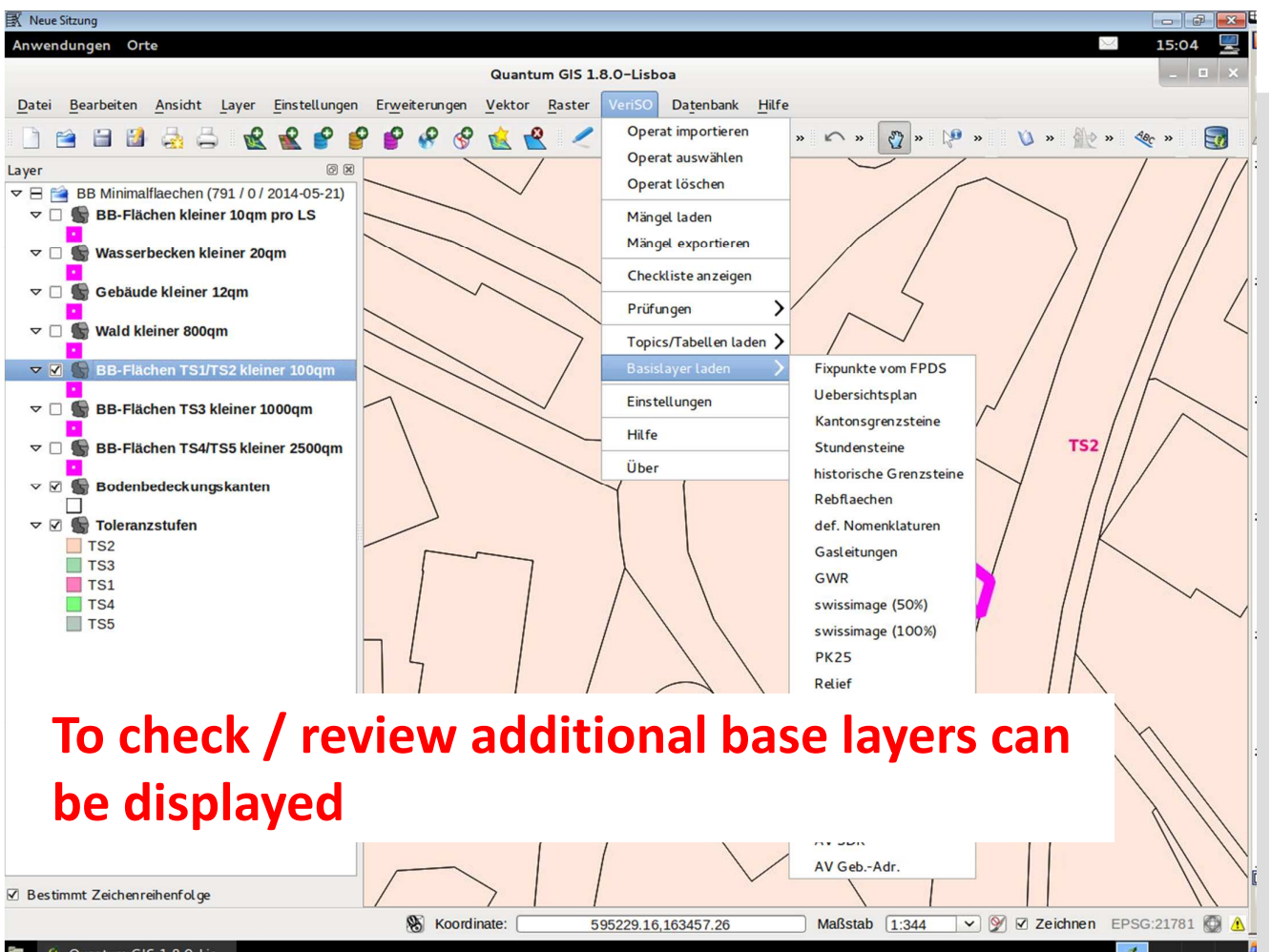
Minimalflaechen

Surfaces smaller than criteria:

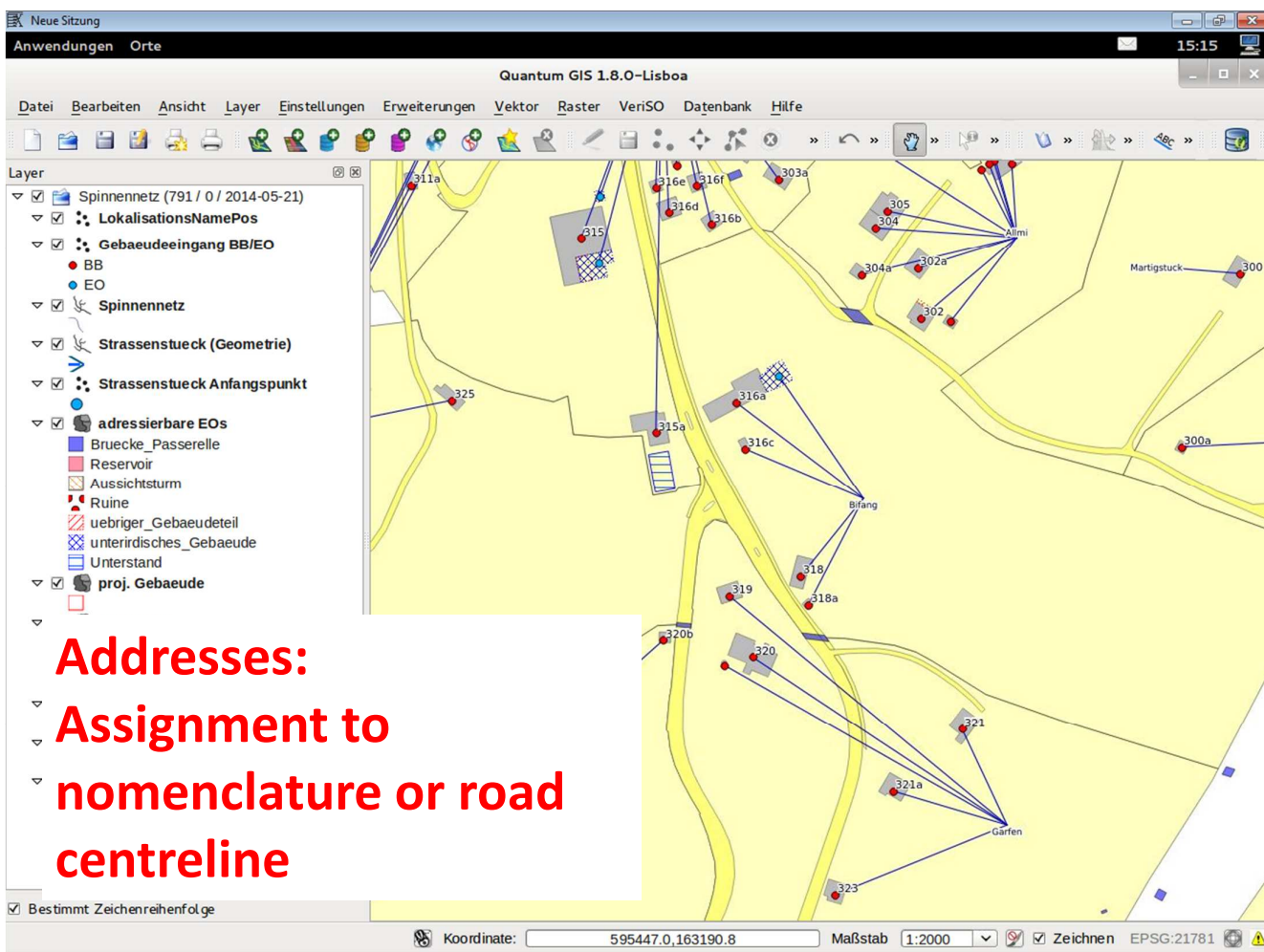
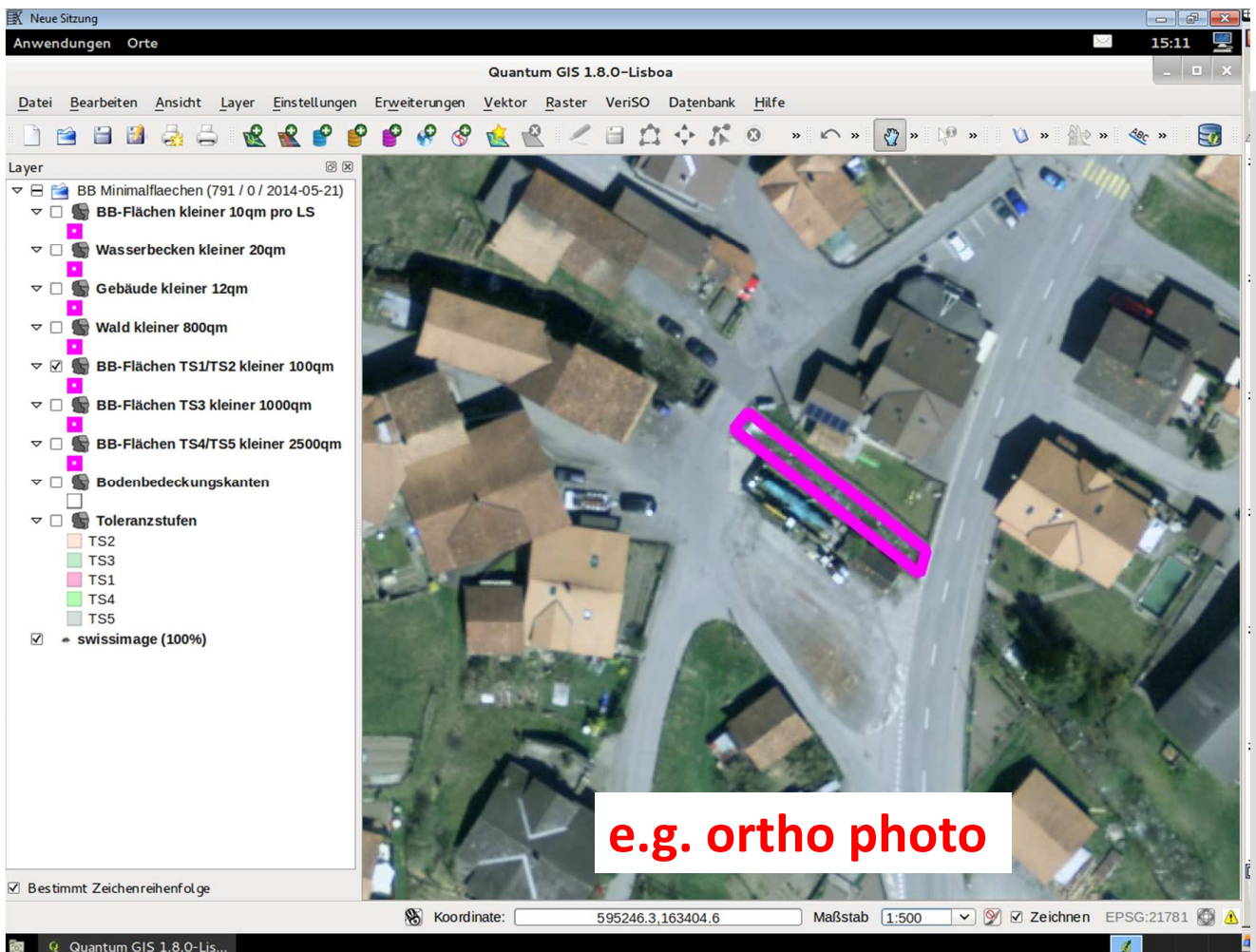
BB pro LS (10qm):	200
Wasserbecken (20qm):	1
Gebaeude (12qm):	106
Wald (800qm):	140
TS 1/2 (100qm) :	72
TS 3 (1000qm):	633
TS 4/5 (2500qm):	1320

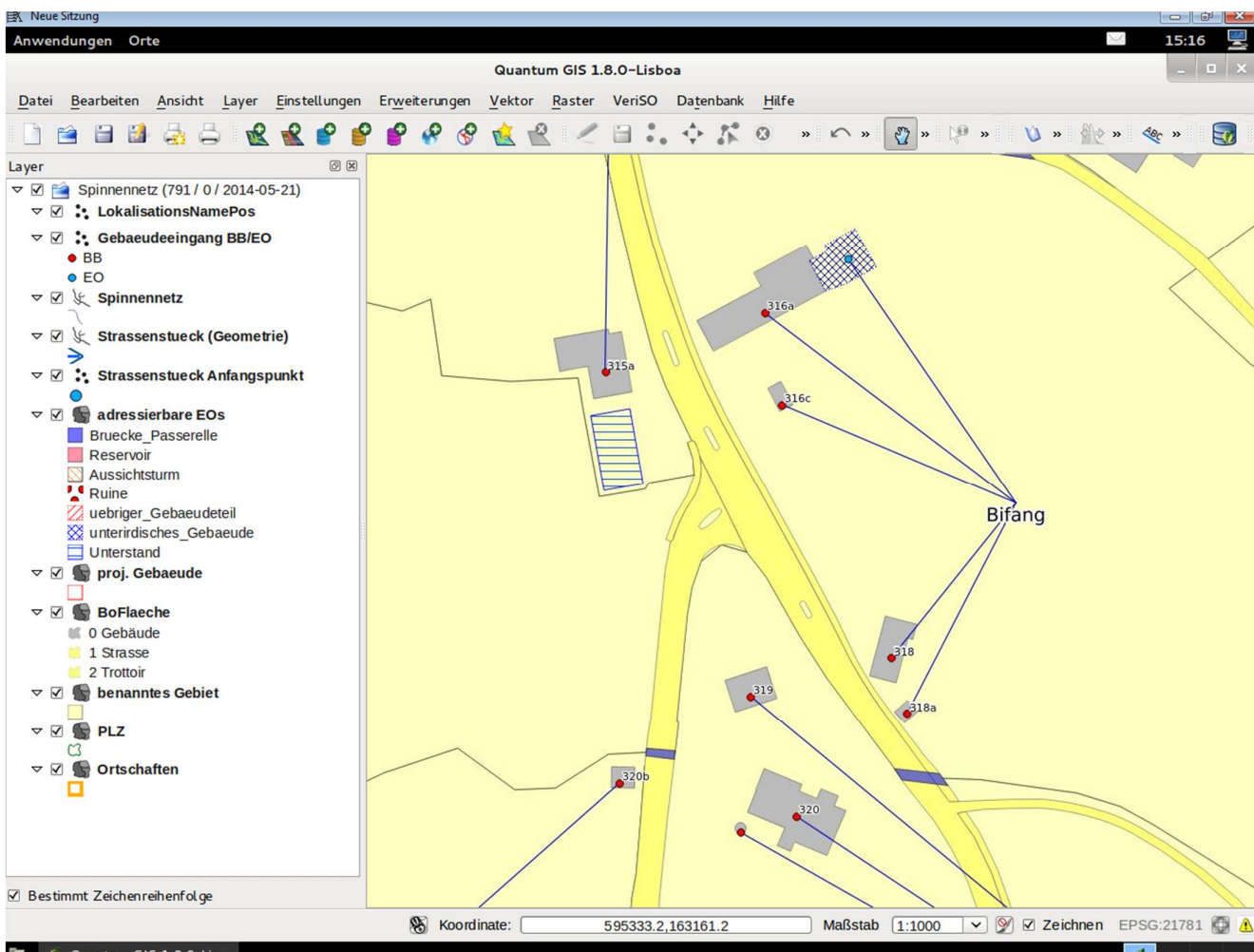


2. Visualisation of surfaces that are too small



To check / review additional base layers can be displayed





The screenshot shows a spreadsheet application window titled 'lfp3-statistik_791_0_20...'. A dialog box 'Export LFP3 statistics' is open, displaying 'File written: /home/dung/ausgabe/lfp3-statistik_791_0_2014-05-21.xls'. The spreadsheet data is as follows:

	A	B	C	D	E	F
1	Gemeinde:	Boltigen (791)				
2	Los:	0				
3	Lieferdatum	2014-05-21				
4						
5	Toleranzstufe	Fläche [ha]	Ist-Anzahl (L)	Soll-Anzahl (P)	Ist-Soll (LFP3)	
6	2	46.09	106	32	74	
7	3	1490.58	306	298	8	
8	4	1536.95	323	154	169	
9	5	4633.11	230	93	137	
10						
11	Total	7706.73	965	577	388	
12						
13	Punkte auss	48				
14						
15						

At the bottom of the spreadsheet, there is a red text overlay: **Tests - Fixpoints - LFP per tolerance level**. Below this, the numbers 19 and 20 are visible in the first column.

Neue Sitzung

Anwendungen Orte

topologiefehler-statistik_791_0_2014-05-21.xls -

File Edit View Insert Format Tools Data Window Help

Arial 10

E14 $f(x)$ Σ =

	A	B	C	D	E	F
1	Gemeinde:	Boltigen (791)				
2	Los:	0				
3	Lieferdatum	2014-05-21				
4						
5	Referenzperimeter	Fläche [m2]	Testperimeter	Fläche [m2]	Differenz [m2]	
6	Gemeindegrenze	77067351.5303116	Bodenbedeckung	77067350.940033	0.5902785957	
7			Flurnamen	77067351.5282135	0.0020980984	
8			Liegenschaften	77067351.5303116	0	
9			Plangeometrie	126525000	-49457648.4696884	
10			Toleranzstufen	77067351.5074387	0.022872895	
11						
12						
13						
14						
15						
16						
17						

Tests - topology errors - Overview

ALPGIS AG Raumentwicklung und Geoinformation

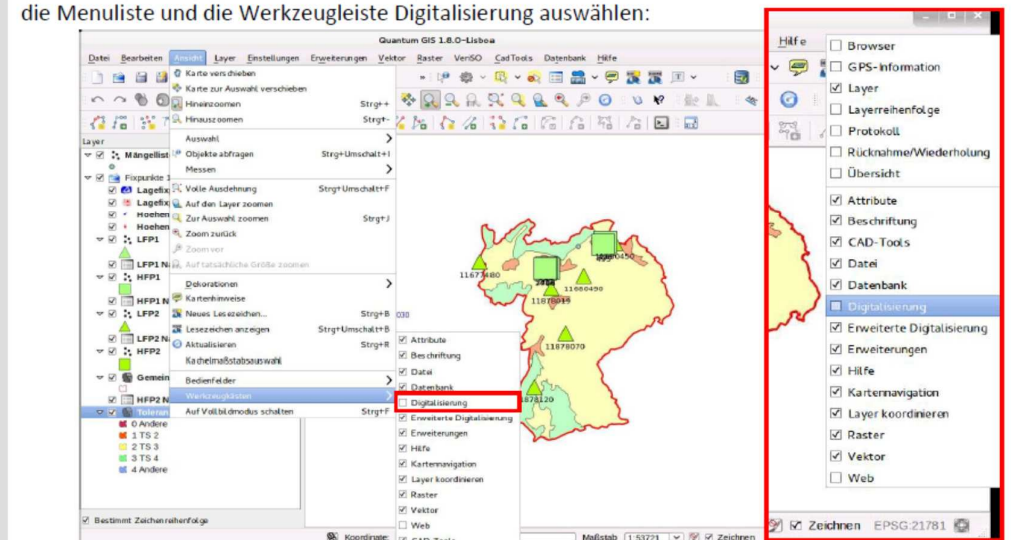
ALPGIS

Help: Manual with documentaries and descriptions

Bei sämtlichen Filurungen kann der Layer Mängelliste mit versch. / mangel laden hinzugefügt werden.

Wenn ein Mangel/Fehler festgestellt wird, kann dieser wie folgt erfasst/dokumentiert werden:

Unter Ansicht / Werkzeugkästen kann Digitalisierung ausgewählt werden, oder rechte Maustaste auf die Menuliste und die Werkzeugleiste Digitalisierung auswählen:



Benefits / Advantages

- same verification-tools for all
- Visualization of errors
- report is done in guides workflow
- verification process is accelerated
- optimizing of verification processes

Outlook

- implement different data models/topics
 - Planning, Water, Gas, Sewage, ...
- extension for new coordinate system
- optimizing software
 - automate query
 - File upload from drive instead of FTP
-

Questions?

Thank you for your attention

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