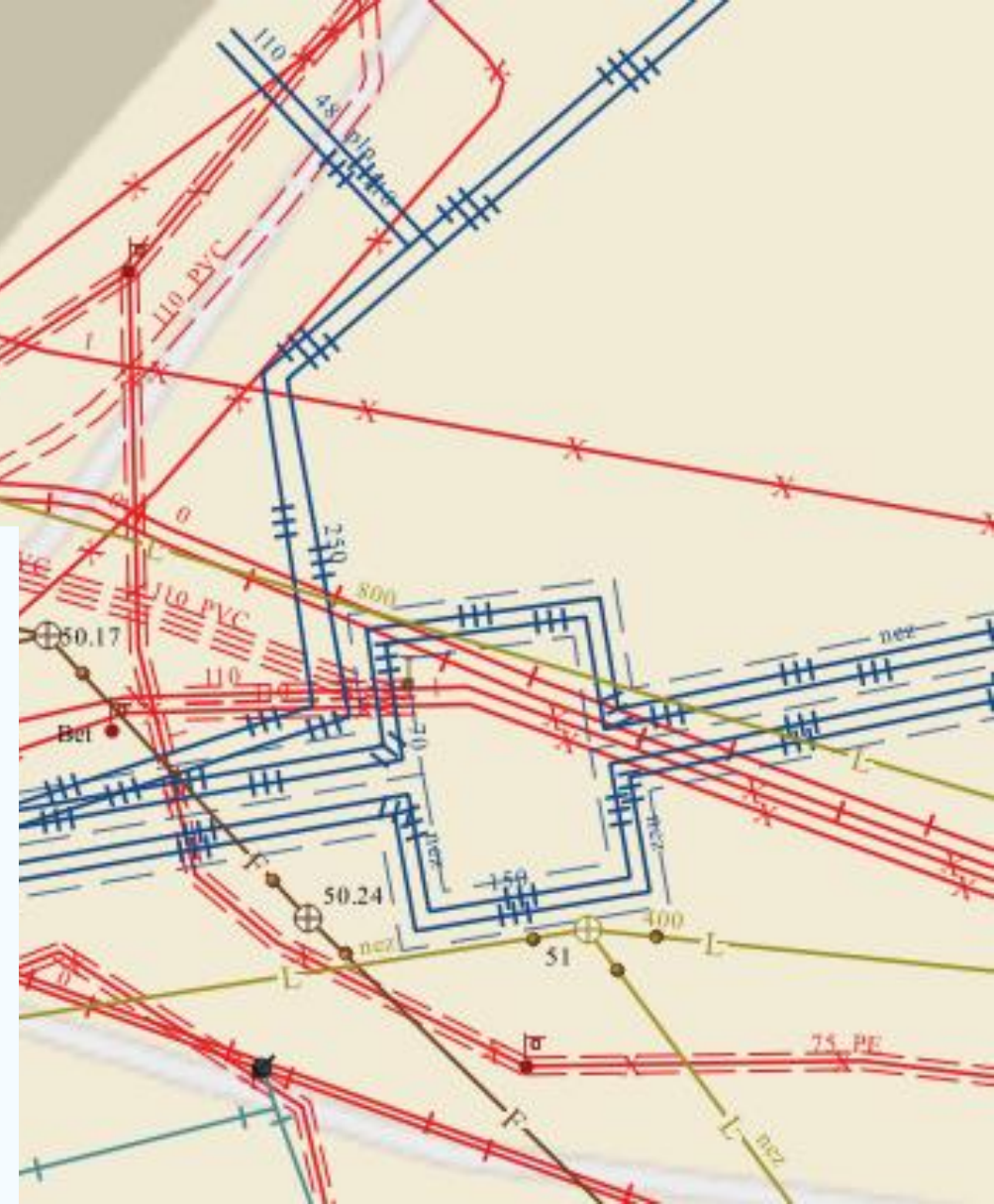




GIS – OPEN AND (UN)SIMPLE FOR SMALL UTILITY COMPANIES

Infraplace Kostas Gružas

2023 June 9th

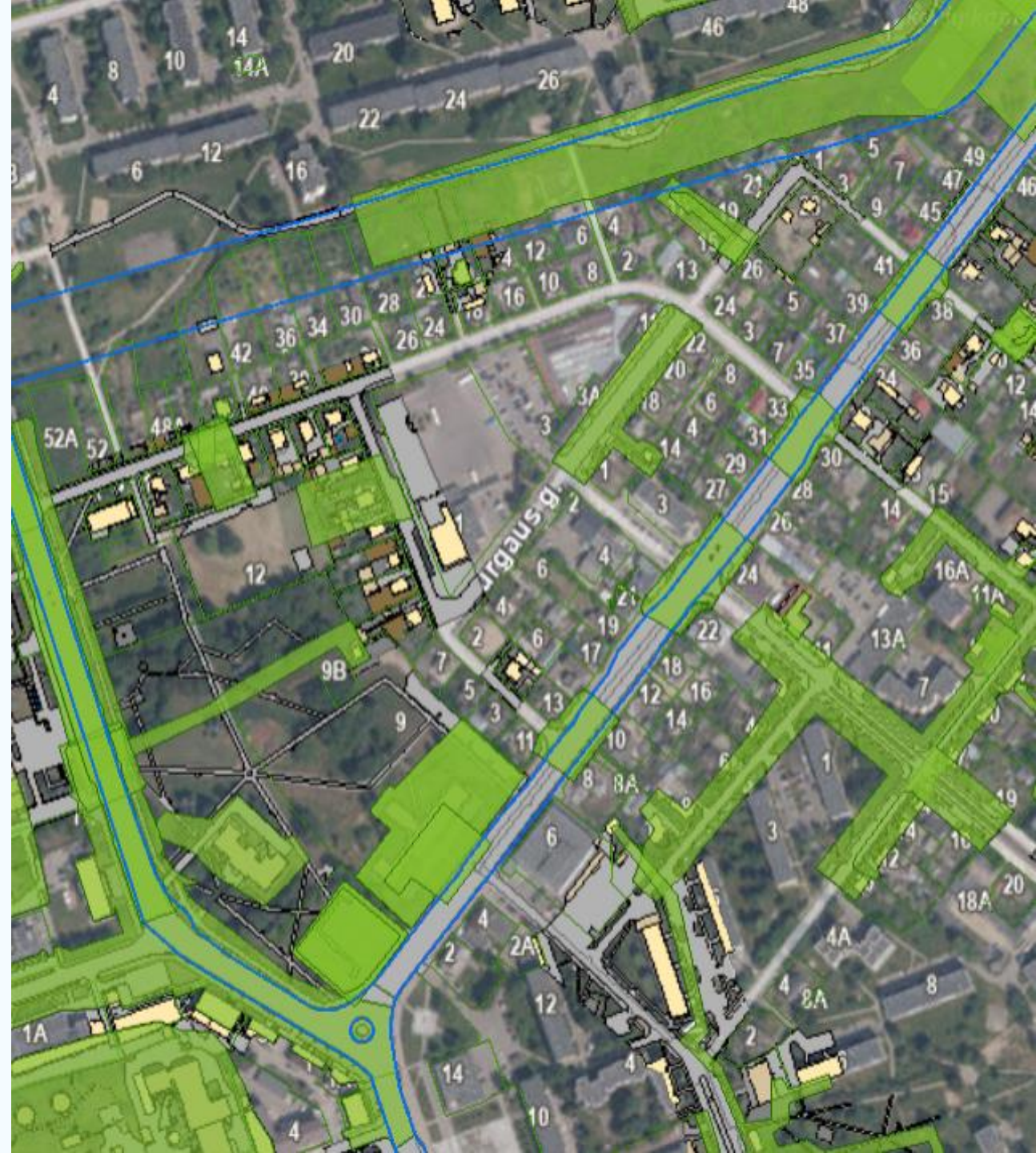


For who and why?

THE NEED AND ISSUES

Topography and engineering infrastructure information system (TIIS)

According to the Law on Geodesy and Cartography of the Republic of Lithuania, companies managing engineering networks are required to submit data on network objects to the (TIIS).



The spatial data provided to the TIIS must comply with the structure of the TEDR dataset

36

LAYERS

103

DIFFERENT ATTRIBUTE FIELDS

40

CLASSIFIERS



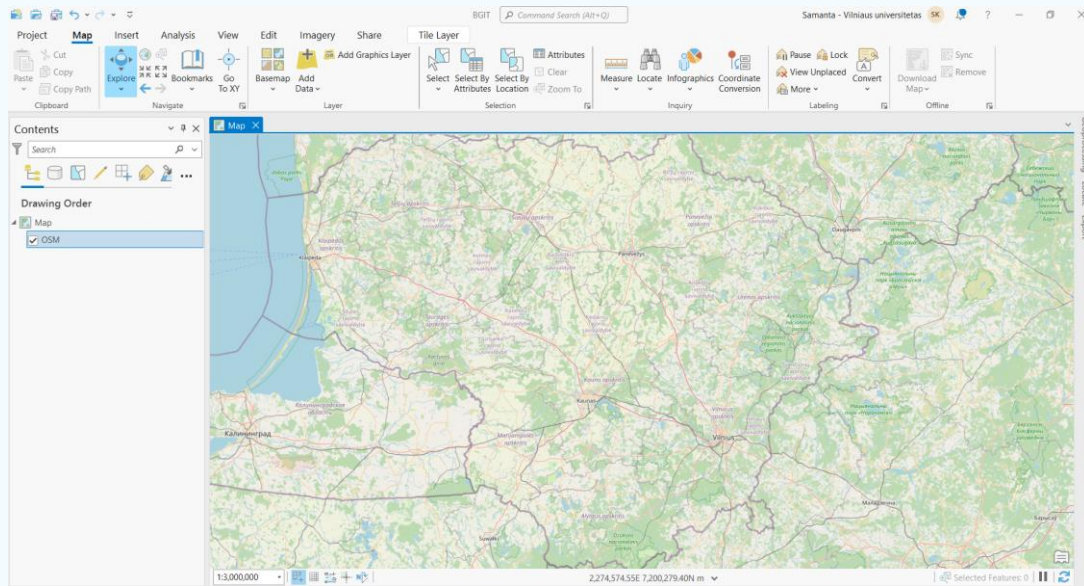
For most small utilities, this is new, unfamiliar and challenging

Where to start?

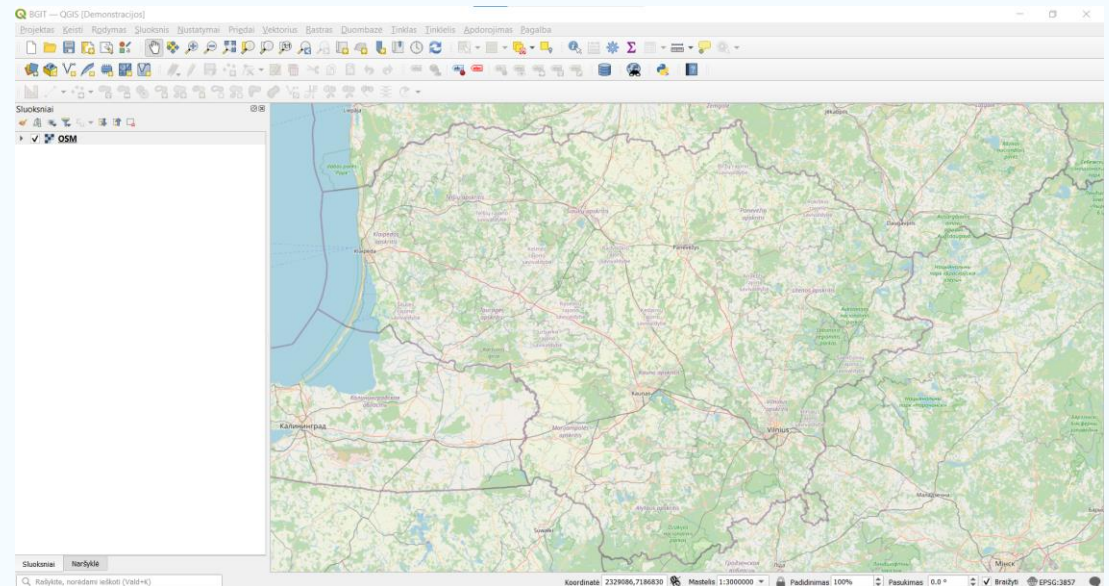
CHOOSE THE SOFTWARE

Evaluate and choose the most appropriate way to manage and administer spatial data (I)

COMMERCIAL GIS SOFTWARE



OPEN-SOURCE GIS SOFTWARE



Evaluate and choose the most appropriate way to manage and administer spatial data (II)

COMMERCIAL GIS SOFTWARE

- New and complicated
- Requires time and effort to learn how to use the software
- Paid

OPEN-SOURCE GIS SOFTWARE

- New and complicated
- Requires time and effort to learn how to use the software
- Unpaid

Guess which type of GIS
software our solution
includes

WHO WE ARE AND WHAT OUR
SOLUTION IS

InfraPlace

GIS solutions for organisations managing utility networks and their spatial data

- We started developing solutions in July 2022
- Our Customers now working independently with open-source GIS software
- A team made up of lecturers and students



Our solution for small utility companies

<3 EMPLOYEES

From data management to data transfer
to external information systems.



Data view maps



Data editing forms



Specialised classifiers



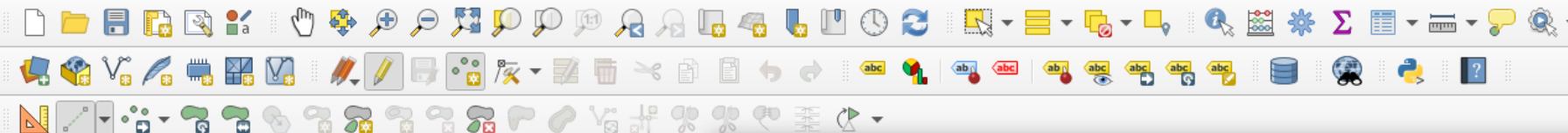
Filing automation



Tools for submitting
data to the TIIS



Extract forms



Sluoksniai

- Lietaus nuotekų ir drenažo inžinerinis tinklas
 - Liet t - taškiniai objektai (įrenginys, kameros dangtis)**
 - Liet tinkl - tinklo vamzdžiai, kolektoriai
 - Liet_I - kiti linijiniai objektai (šulinio/kameros kor)
- Buitinių ir gamybinių nuotekų inžinerinis tinklas
 - Nuot t - taškiniai objektai (įrenginys, kameros dangtis)
 - Nuot tinkl - tinklo vamzdžiai, kolektoriai
 - Nuot_I - kiti linijiniai objektai (šulinio/kameros kor)
- Vandentiekio inžinerinis tinklas
 - Vand t - taškiniai objektai (įrenginys, hidrantas, kameros dangtis)
 - Vand tinkl - vamzdžiai
 - Vand_I - kiti linijiniai objektai (šulinio/kameros kor)
- Papildo
 - ED
 - TIIIS
 - Gec
 - Klas

Liet_t - taškiniai objektai (įrenginys, kameros dangtis, aukščio taškas ir pan.) - Geoobjekto atributai

Erdvinio objekto bendrieji duomenys | **Objekto inžineriniai duomenys** | Integravimo duomenys | Redagavimo istorija

▼ Identifikavimo duomenys

GlobalID NULL

KODAS (nėra pažymėjimo) x

Apsk_nr NULL

Savininkas NULL

Priziuri NULL

Saltinis (nėra pažymėjimo)

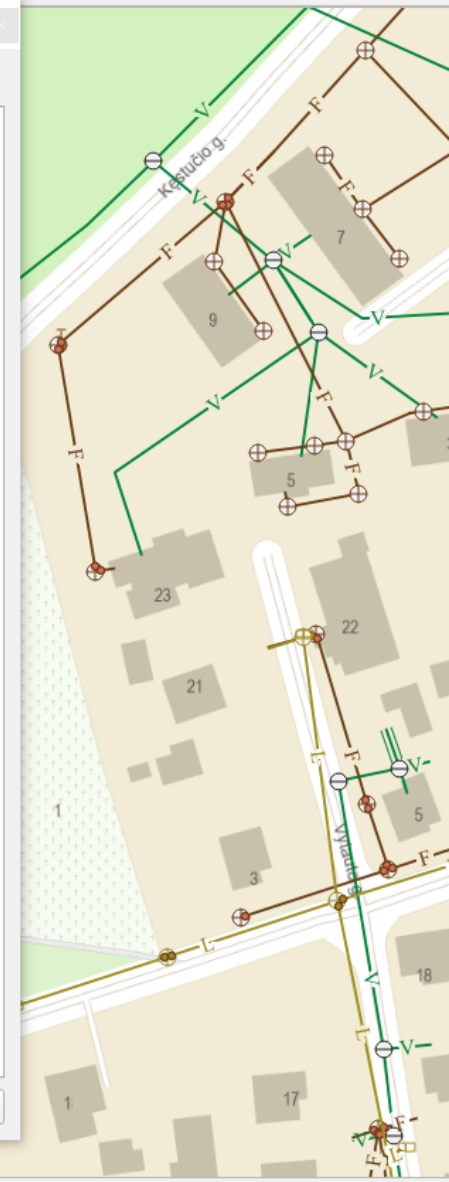
Bukle x

Apsauga x

Eksprdata NULL

Kortele NULL

OK Cancel



Add data via attribute data forms

Facilitates data entry and editing, reducing the number of potential errors

Erdvinio objekto bendrieji duomenys

Objekto inžineriniai duomenys

Integravimo duomenys

Redagavimo istorija

EO sukūręs asmuo (ED integruotojas)	(postgres)
EO sukūrimo data ir laikas	2022-11-17 19:28:07
Red_n	(vilkaviskio_vandenys)
Red_d	2023-06-02 21:09:57
Viesas	0
Rinkinys	(VV-TEDR)

OK

Cancel

Automatic data filling

Facilitates data management.
Reducing the number of potential errors

```

CREATE TRIGGER "tedr_q_log_insert_vand_t" (delete)
after insert on "Vand_t"
begin

update "Vand_t"
set
"Nauj_n" = (select username from sys_users order by id limit 1),
"Nauj_d" = strftime('%Y-%m-%dT%H:%M:%S',DATETIME('now', 'localtime')),
"Red_n" = (select username from sys_users order by id limit 1),
"Red_d" = strftime('%Y-%m-%dT%H:%M:%S',DATETIME('now', 'localtime')),
"GlobalID" = upper('{ ' || hex(randomblob(4)) || '-' || hex(randomblob(2)) || '-4' || substr(hex(randomblob(2)),2) || '-' || substr('89ab',abs(random()) % 4 + 1, 1) ||
substr(hex(randomblob(2)),2) || '-' || hex(randomblob(6)) || '}')
where
new."fid" == "fid";

end

```

```

tedr_q_log_update_vand_t (delete)
CREATE TRIGGER "tedr_q_log_update_vand_t"
after update on "Vand_t"
for each row
when new.Red_d > old.Red_d or old.Red_d is null
begin

update "Vand_t"

```

```

)),

altime'));

WHEN (new."geom" NOT NULL AND NOT ST_IsEmpty(NEW."geom")) BEGIN INSERT OR REPLACE INTO
:(NEW."geom"),ST_MinY(NEW."geom"), ST_MaxY(NEW."geom")); END
" ON "Vand_t" WHEN OLD."fid" = NEW."fid" AND (NEW."geom" NOTNULL AND NOT
_geom" VALUES (NEW."fid",ST_MinX(NEW."geom"), ST_MaxX(NEW."geom"),ST_MinY(NEW."geom"),
" ON "Vand_t" WHEN OLD."fid" = NEW."fid" AND (NEW."geom" ISNULL OR ST_IsEmpty(NEW."geom"))

_t" WHEN OLD."fid" != NEW."fid" AND (NEW."geom" NOTNULL AND NOT ST_IsEmpty(NEW."geom"))
)R REPLACE INTO "rtree_Vand_t_geom" VALUES (NEW."fid",ST_MinX(NEW."geom"),
:ND
_t" WHEN OLD."fid" != NEW."fid" AND (NEW."geom" ISNULL OR ST_IsEmpty(NEW."geom")) BEGIN
ID
WHEN old."geom" NOT NULL BEGIN DELETE FROM "rtree_Vand_t_geom" WHERE id = OLD."fid"; END
"Vand_t" BEGIN UPDATE gpkg_ogr_contents SET feature_count = feature_count + 1 WHERE
"Vand_t" BEGIN UPDATE gpkg_ogr_contents SET feature_count = feature_count + 1 WHERE

```

Triggers

Flexibility and implementation of ideas



Parametrai

Žurnalas

TEDR eksportavimo direktorija



TEDR eksportavimo laikas

2023-06-02 21:16

 Ar reikalingas ekportavimo ataskaita?

Eksportuoti duomenis teikimui į TIIIS

Įrankis skirtas išeksportuoti duomenis paruoštus teikimui į TIIIS. Įrankis konvertuoja duomenis į reikiama formatą, atlieka atributinių laukų konversiją bei kitus duomenų apdorojimo veiksmus.

Įvesties parametrai

TEDR eksportavimo direktorija

Direktorija, į kurią bus eksportuoti visi į TIIIS teikiami TEDR sluoksniai.

TEDR eksportavimo laikas

Laikas, kad vykdomas duomenų eksportavimas. Standartiškai nurodomas įrankio naudojimo laikas, bet jį gali keisti, jeigu norite nurodyti, kad duomenų versija yra senesnė, nei ekportavimo faktas.

Ar reikalingas ekportavimo ataskaita?

Duomenų eksportavimo veiklos žurnalo failas. Įvykus klaidai šis failas gali padėti



0%

Nutraukti

Sudėtingesni ▾

Paleisti kaip paketinį procesą...

Vykdėti

Close

Tool for uploading data to TIIIS

A user-friendly tool

All in one file storage

Map projects

+

TEDR dataset

+

Tools for uploading data to TIIS

+

Additional data to facilitate data input

=

GeoPackage database file < 30 MB

Training

- A constantly updated archive of video lessons
- We create lessons based on users' questions
- Join when and where you want
- Personal consultations



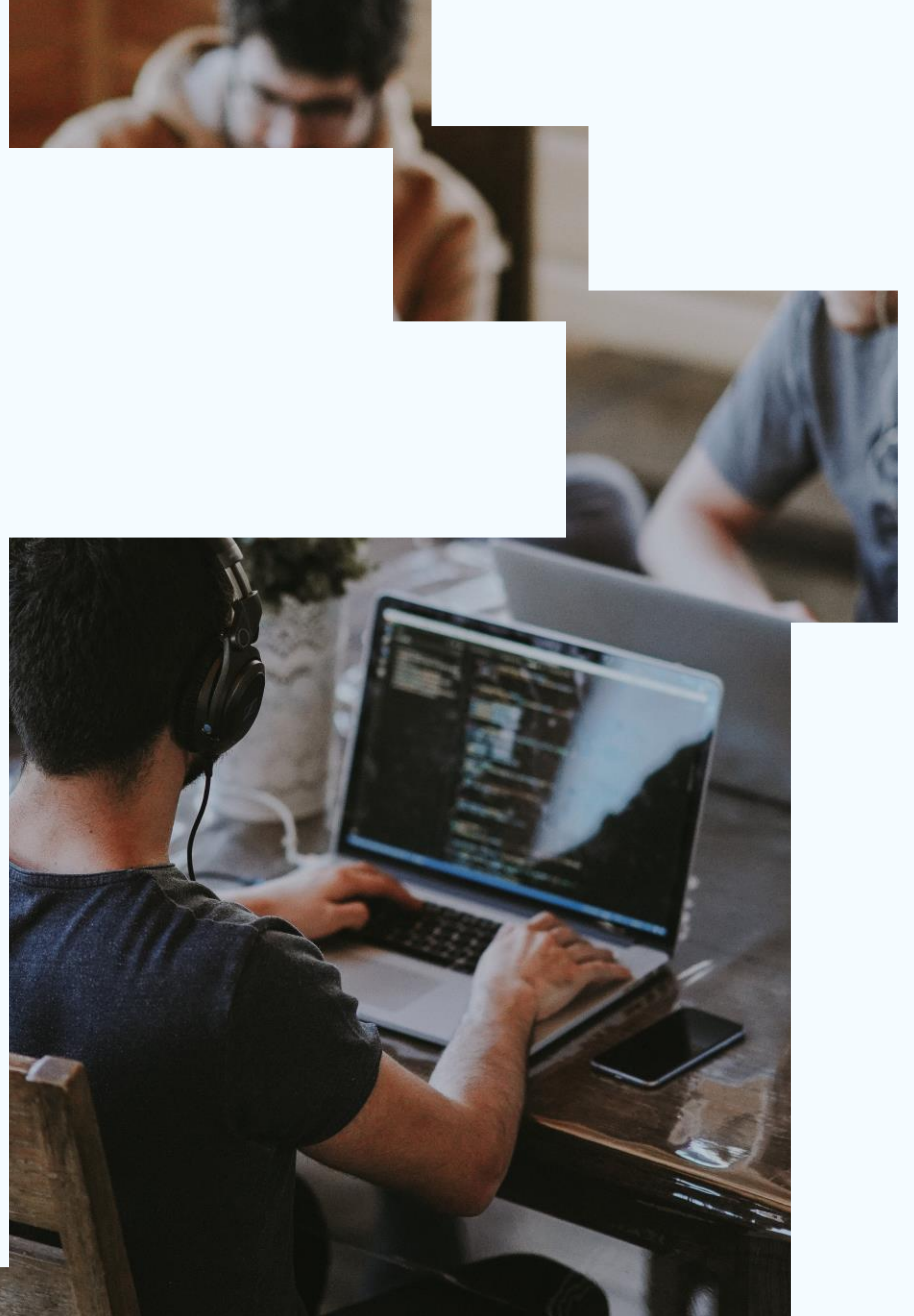
Log in

[Lost password?](#)

English (en) ▾

[Cookies notice](#)

We have created an environment where (un)simple can be simple



Challenges and issues

A photograph of a meeting room. A person's hand is visible in the foreground, pointing towards a wall covered in numerous sticky notes. The sticky notes are arranged in a structured manner, likely representing a project plan or a brainstorming session. The room has a modern feel with track lighting on the ceiling.

GIS, open-source are new definitions for small utilities companies

We are young people who work with software that is not well known in their communities



At university, we learn to be employees rather than creators

Not enough focus on open-source GIS, product development and marketing courses at university

 **KOSTAS GRUŽAS**

 <https://infraplace.lt/>

 kostas.g@infraplace.lt

Thanks for your attention

Baltic GIT

2023 June 9th

