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How to use the Survey Codings tools

SERISS WP8 Survey Codings workshop

15 Februari 2019

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This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 654221.

What do we want to do?

- We want to measure indicators that tell us something on a respondents Socio Economic variables, human capital

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What do we want to do?

How much money do you make?

What was your education?

For how many years were you in full time education?

What is your job title?

How many people do you manage?

In your job, can you decide on money?

In what industry do you work?

Do you have a pension?

What tasks do you do in your job?

How many hours a week do you work?

Do you have a job?

Did you ever have a job?

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Some questions are always closed

How much money do you make?

What was your education?

For how many years were you in full time education?

What is your job title?

How many people do you manage?

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In what industry do you work?

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Do you have a job?

Did you ever have a job?

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Some questions have numerical answers

How much money do you make?

What was your education?

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What is your job title?

How many people do you manage?

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Other questions can be open

How much money do you make?

What was your education?

For how many years were you in full time education?

What is your job title?

How many people do you manage?

In your job, can you decide on money?

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Other questions are open

How much money do you make?

What was your education?

For how many years were you in full time education?

But we want to calculate, do statistics....

What is your job title?

How many people do you manage?

In your job, can you decide on money?

In what industry do you work?

Do you have a pension?

What tasks do you do in your job?

How many hours a week do you work?

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Education:

fixed set, not translatable, institutionalized, synonyms, regional

Occupation:

large set, mostly translatable, dynamic, many matches per code

Industry:

smaller set, translatable, fixed

Fields of education:

smaller set, translatable, fixed

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Before you can do calculations on these open answers, you need to structure them in a fixed set of responses.

That is were classifications come into play.

We want to translate the open answer that respondents have in mind, to a classification. So we can compare, and group them.

There are several ways of doing this:

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Present the complete classification in a list and ask respondents to select where their open answer belongs.

Present a list of higher levels of the classification, so we at least know where to globally position them.

Create a nested tree, so the respondent can identify to a lower level where they should be classified.

Accept an open answer, and let others do the classification

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This is bad idea….

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The **International Standard Classification of Occupations** (**ISCO**) is an International Labour Organization (ILO) classification structure for organizing information on labour and jobs. It is part of the international family of economic and social classifications of the United Nations.[1] The current version, known as **ISCO-08**, was published in 2008 and is the fourth iteration, following ISCO-58, ISCO-68 and ISCO-88.

The ILO describes the purpose of the ISCO classification as:[2]

> a tool for organizing jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job. It is intended for use in statistical applications and in a variety of client oriented applications. Client oriented applications include the matching of job seekers with job vacancies, the management of short or long term migration of workers between countries and the development of vocational training programmes and guidance.

The ISCO is the basis for many national occupation classifications as well as applications in specific domains such as reporting of teaching, agricultural and healthcare workforce information.[3] The ISCO-08 revision is expected to be the standard for labour information worldwide in the coming decade, for instance as applied to incoming data from the 2010 Global Round of National Population Censuses.[4][5]

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Present a list of higher levels of the classification (Showcard), so we at least know where to globally position them.

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F55
CARD 50 Welche der Beschreibungen auf Liste 50 trifft am besten auf die Berufstätigkeit Ihres Vaters zu, als Sie 14 Jahre alt waren?
NT: NUR EINE NENNUNG MÖGLICH.

INT: BEFRAGTE MÜSSEN DIE KATEGORIE SELBST AUSWÄHLEN. FALLS NOTWENDIG, FOLGENDES HINZUFÜGEN: "ES GIBT KEINE RICHTIGE ODER FALSCHE ANTWORT. **WÄHLEN SIE EINFACH DIE KATEGORIE, VON DER SIE DENKEN, DASS SIE AM BESTEN PASST."**

- ○ Akademische und technische Berufe wie: Arzt – Lehrer – Ingenieur – Künstler – Steuerberater
- ○ Höhere Verwaltungs- und Managementberufe wie: Finanzmanager – Geschäftsführer – Regierungsdirektor - Gewerkschaftsführer
- ○ Büroberufe wie: Sekretär – Büroangestellter – Büroleiter - Buchhalter
- ○ Vertriebsberufe wie: Vertriebsmanager – Ladenbesitzer – Verkäufer – Leiter der Versicherungsabteilung
- ○ Dienstleistungsberufe wie: Restaurantbesitzer – Polizist – Kellner – Pflegepersonal – Friseur – Bundeswehr
- ○ Ausgebildete Arbeitskräfte in technischen und handwerklichen Berufen wie: Werk- und Industriemeister - Kfz-Mechaniker – Maler -Werkzeugmacher – Elektriker
- ◉ Arbeitskräfte in technischen und handwerklichen Berufen wie: Maurer – Busfahrer – Arbeiter – Zimmerer – Metallarbeiter - Bäcker
- ○ Ungelernte Arbeitskräfte in technischen und handwerklichen Berufen wie: Hilfsarbeiter – Pförtner – ungelernter Fabrikarbeiter
- ○ Landarbeiter wie: Landwirt – Landarbeiter – Traktorfahrer – Fischer

Zurück Weiter

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Present a list of higher levels of the classification (Showcard), so we at least know where to globally position them.

- Only high level information
- Hard for some respondents to position themselves

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Present the complete classification in a list and ask respondents to select where their open answer belongs.

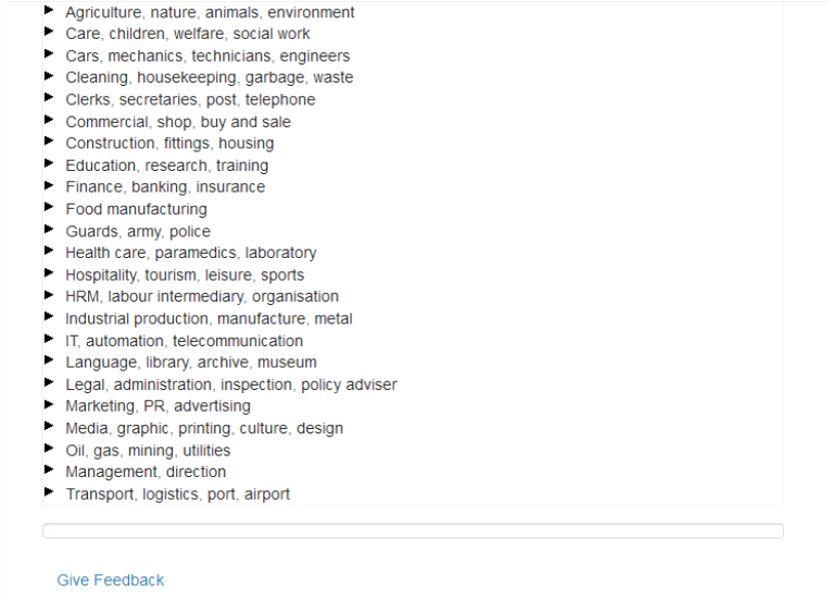
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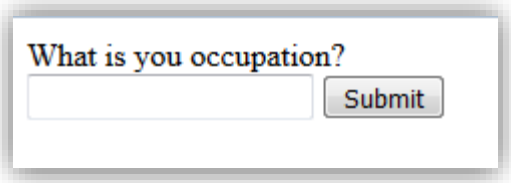
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F47
Was ist die genaue Bezeichnung seines/ihres Hauptberufes?

INT.: BITTE EINTRAGEN

Zurück Weiter

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Accept an open answer, and let others do the classification

- Too broad
- Too specific
- Too vague

- Expensive
- Others? Experts?
- Office coding tools
- Can't go back to the respondent

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We can think of many other more exotic approaches:

- A presented nested list could adapt based on previous entered information
- A list of suggestions can pop up as you type
- Give automatic feedback to avoid uncodable responses

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In order to implement many of these approaches, we could use a structured set of coded responses that cover the codeable domain.

Structured, to build tree-views on.

Tree views should not necessary copy the hierarchy of a classification

Coded responses, so we can use algorithms to generate likely matches, or calculate scores

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The respondent should find a match in the list that leads to the correct match in the classification.

In general we are not that interested in how they call their occupation, industry or education, we want the algorithm to help find a match that comes close to what they want to classify.

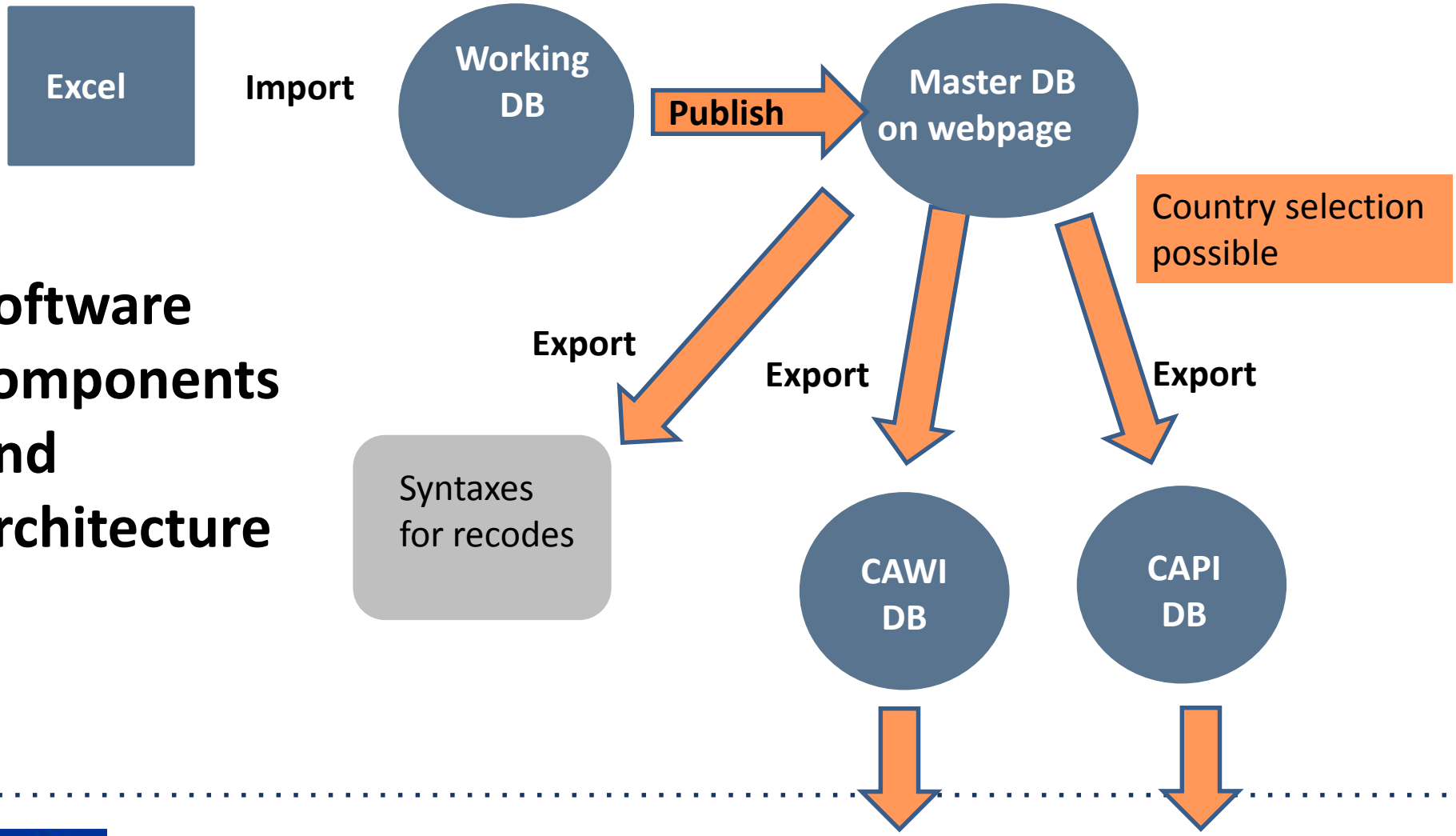
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This is why the surveycodings.org environment is developed.

We want to present an international, comparable set of classified and structured coded set of socio economic indicators, validated and maintained by experts, that we can use to present innovative ways to better measure them.

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Software components and architecture



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How can we do it

- A list of items is stored in a database
- We can do queries on that database
- We could for example extract the whole database
- Or items in the database that start with a certain character, or that contain a certain character, or end with a certain character, or…

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How can survey holders use it?

- Use example JavaScript to connect to online API
- Download example questionnaire.
- Download a copy of the databases and build own tools

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How to integrate?

- It depends
  - Connectivity
  - Software
  - Preferences



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How to integrate?

- Connectivity:
  - Do you have an internet connection available during an interview?
  - Can you call https://api.surveycodings.org ?





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Surveycodings.org

- Software:
  - Can your software make calls to another server
  - Can your software make calls to a local library
  - Can your software activate a local application
  - Can you load in a list in your software?



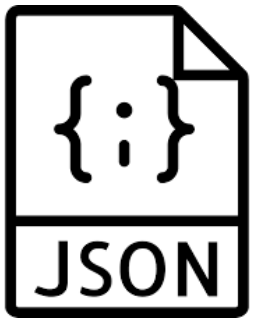


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Surveycodings.org

- https://api.surveycodings.org/codings/search.json?type=education&mode=country

- Will give a list back in JSON.
- Is a service
- You can use various parameters to formulate your request



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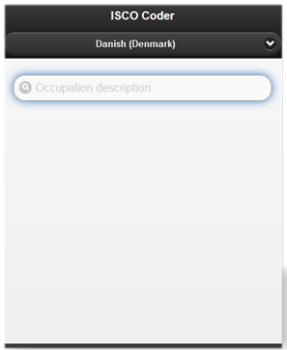
So, let's have a look at the API

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No connectivity

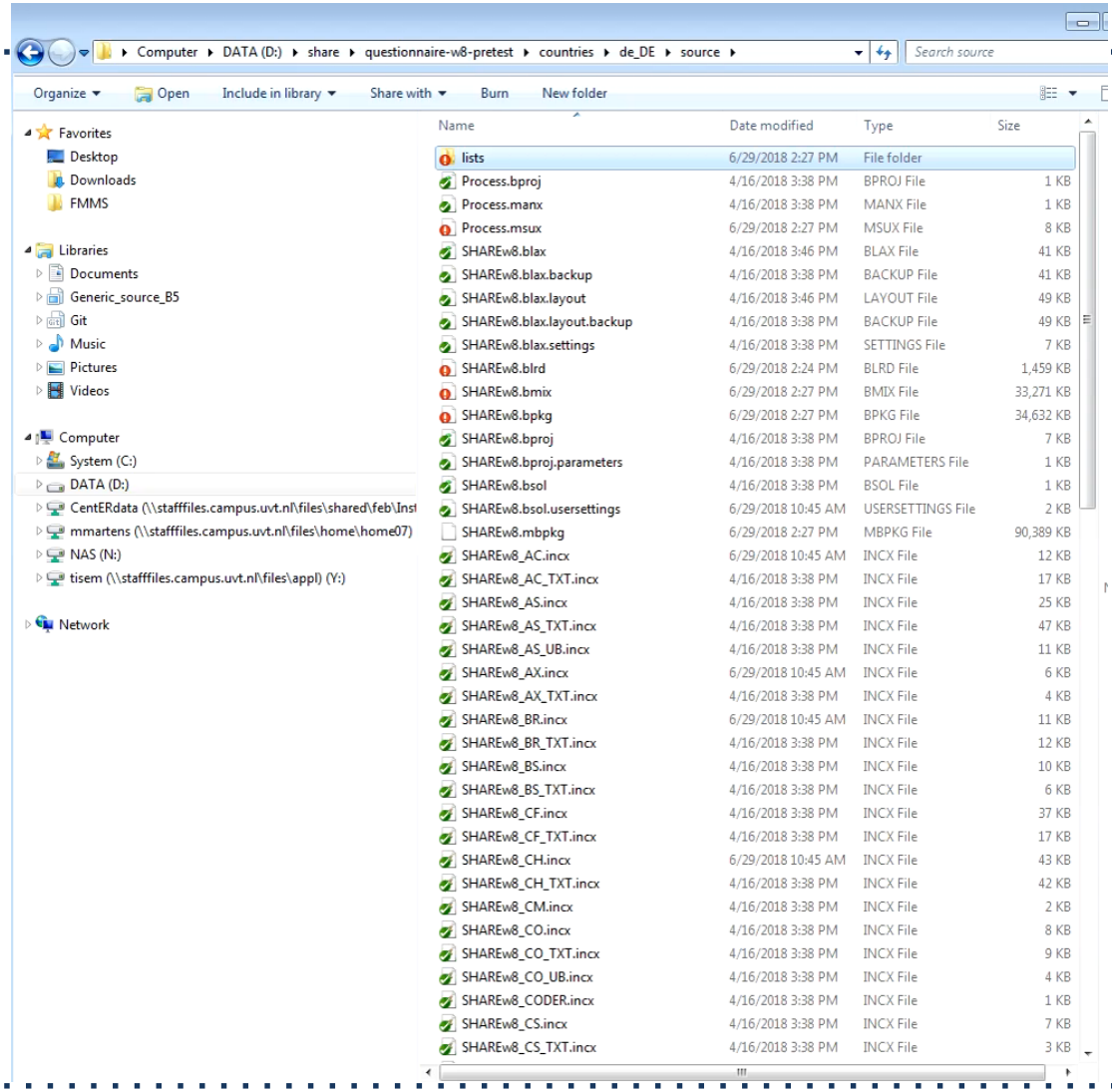
- Can't connect to online service
- Connect to tool on the same device
- Connect to webservice on local device
- The app

Problematic to formulate solutions, it all depends on the software you use.



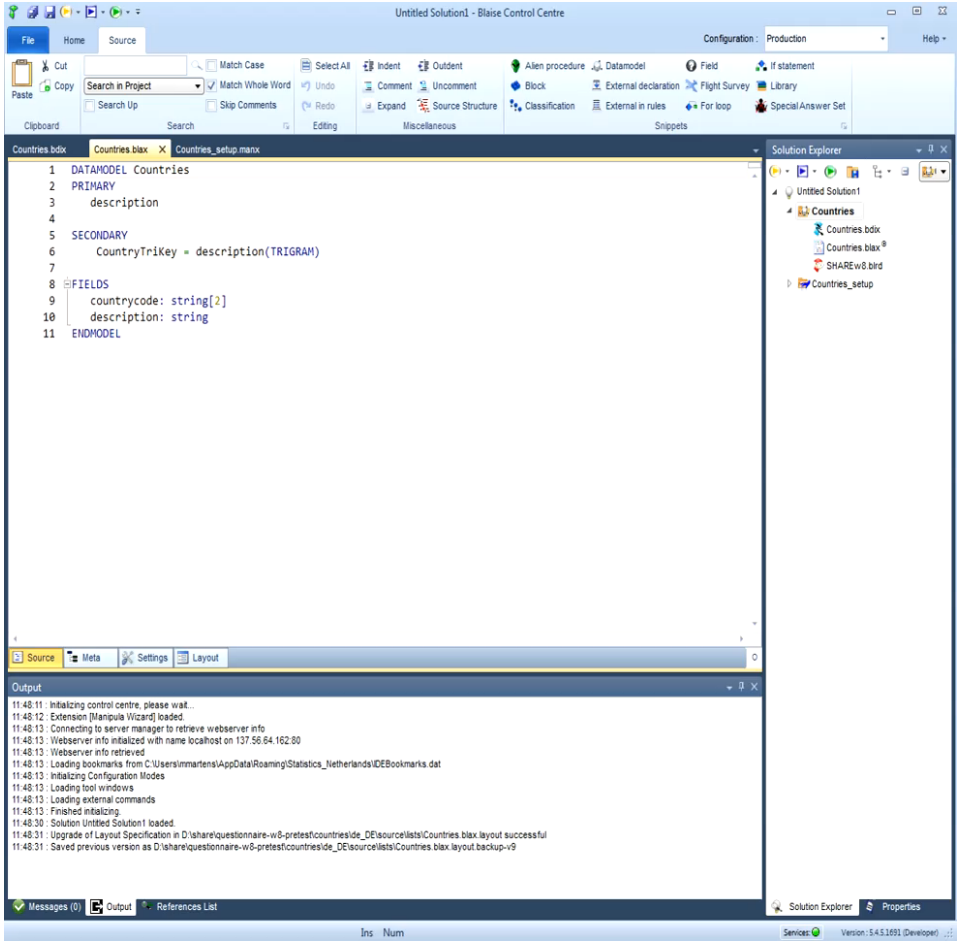
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How it is done in Blaise

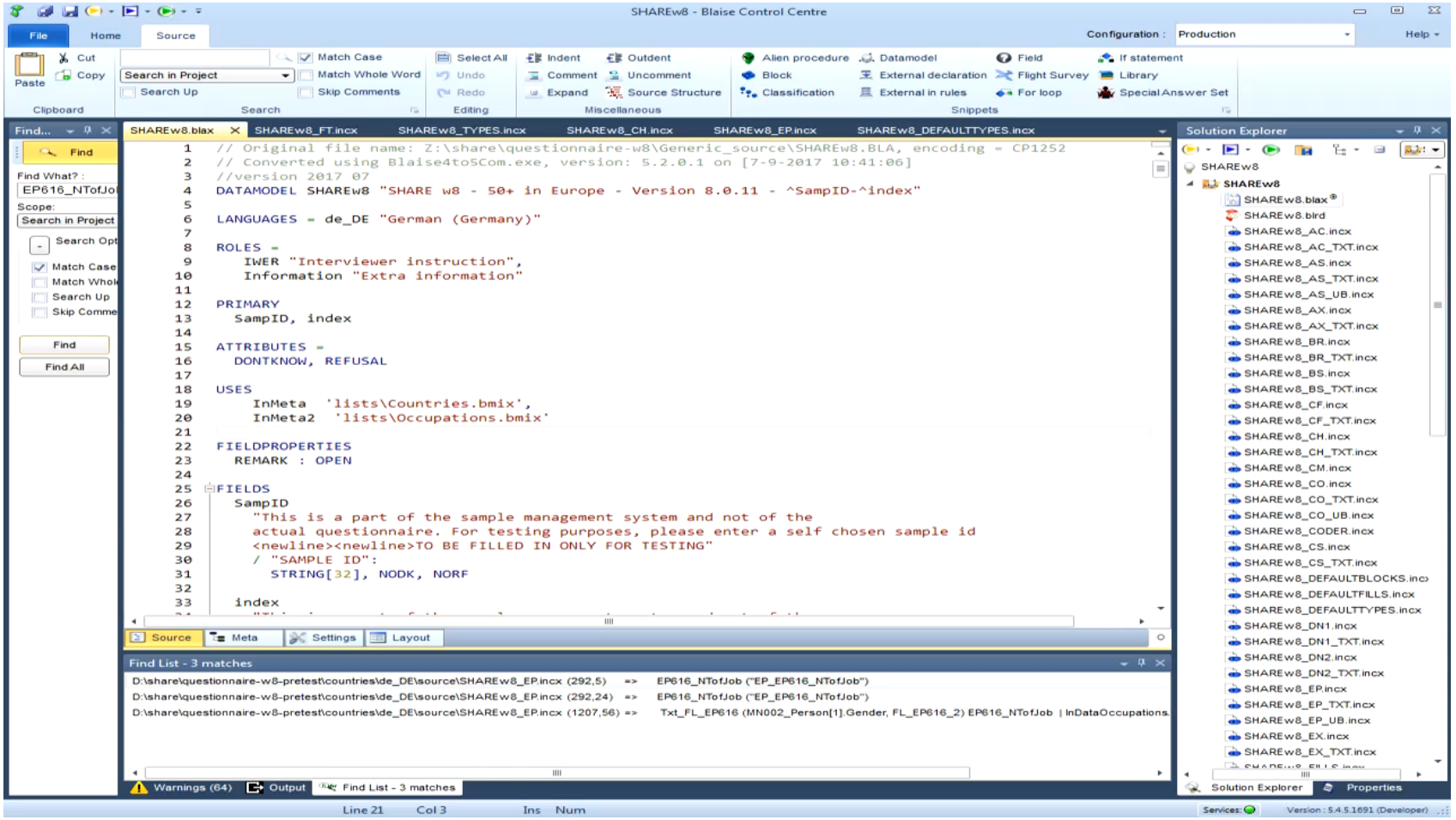


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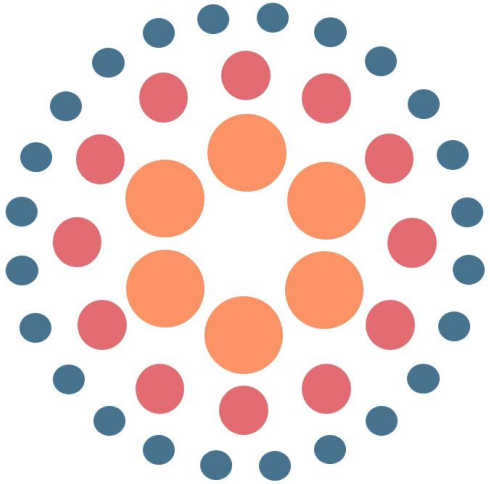
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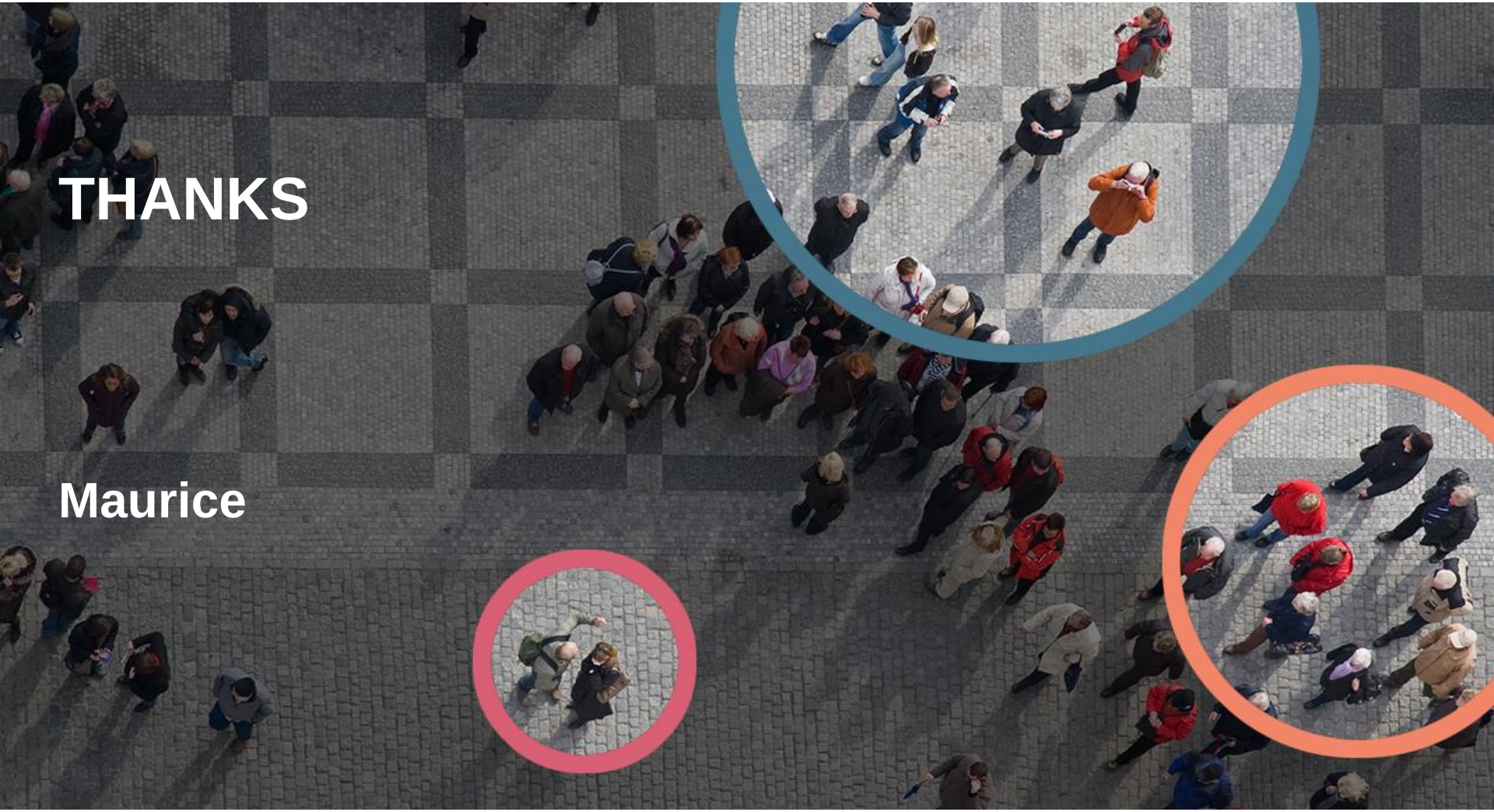
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THANKS
Maurice