hin&weg

Sample Use Cases

For internal use only

Use Case 1: Bringing the data in, defining it and getting it ready for analysis and visualization
A planning report for Gemeinde Aabee requires a chart showing the population growth for under 20-year-olds and others for the last 20 years for each statistical district of the Gemeinde. The demographic data is available on the secure Gemeinde-Server for each of the previous 20 years and with a typical range of demographic variables. The geometry data is available in geojson format, ignoring small district boundary changes taking place in this period. The areas from the geometry data have a field with a standardized district-ID, which is also used for the demographic data. The analyst collects the data and imports it into hin&weg. The import process flags no errors or problems, so she combines the data. The result seems ok, as the combination process also produces no errors. The quality control process suggests that the demographic data for one district is far beyond the sum of the other 11 districts. This may be a data entry problem or error. The user checks the data in hin&weg, verifies the value, and makes a correction. The user saves this data in a workspace as a package (a directory that looks like a file in the OS) and shuts down the computer to get some lunch. After lunch, she plans to start analysis and visualization for the report.

Use Case 2: Several years later, a request comes to update the table (see use-case 1) with new data. The analyst gets the data from a colleague. In hin&weg the old project is opened and exported. The exported tabular data is imported into a new workspace and project. In this project, the original data is replaced by the new data. Since it involves several hundred records, the analyst uses the tabular data | import to create a new table in the project. The quality control tools are used to assure the areas referenced in the tabular data correspond to the geographical units of the project. When this is finished, the analyst is ready to make a map with the new data.

Use Case 3: After coming back from lunch, the user is ready to make the maps showing Gemeinde Aabee the population growth for under 20-year-olds and others for the last 20 years. The workspace saved before lunch is opened. (Assuming no data processing occurred the user would need to load the geodata and tabdata and verify that the quality control of the file linkage is entirely ok.) Under the menu item “Visualisierungen” the user selects map. A pop-window with attributes for the open tabdata appears. The user selects the change in male population <20, and a visualization window appears with this content. After revising the categories and choosing a different color palette, the use selects the map function again, choose change in the female population <20 and a new window appears. Repeating the process, the user creates a map showing the cumulative male/female population <20 change.

Use Case 4: The next week, with new data for the region of the male/female in- and out-migration per month for the last 20 years, the request comes to aggregate the data to yearly totals for males, females, and males and females combined. A temporal collation function creates a new table using the rows with the geographical units’ geo-id number from the old table and years to collate values. Columns for the three attributes (males, females, and males and females) for each year are specified as output. The function collates the values by year for each of the 20 years for the three attributes and inserts them into the corresponding field of the new table.

Use Case 5: Another user using hin&weg has a problem they cannot resolve working with data for the region. They export the tabular, geographical and project data and send the staff the automatically compressed and bundled export as an email attachment. The user clears the workspace in hin&weg to start a new project and imports the three tables to a new workspace. This workspace is saved in a new directory with a new name. Using Quality Control functions an error is indicated in the geographical data. After renaming the new project’s geodata table, you

import the geodata for the region and link it to the tabular data the other user had sent. The user runs the basic quality control function and verifies the data is correct. The old geodata table is deleted, the project saved and then exported. The exported file is ready to be sent back to the other user. You call to check with them after you send the email.

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