Process to calculate the Bundestag for 2013

The process is modelled after the description on bundeswahlleiter.de and consist of four steps. All of the calculations were implemented in SQL or PL/SQL. The calculations are primary done via functions and can recognized in detail there. The views are separated by year, and are distinguished via the year after each name.

All views and functions used to calculate the election results and stats are described in detail on the next page.

Step 1:

A view named “sitzeproland” is generated, where the number of seats per federal state is calculated.

Step 2:

The federal state seats are assigned to each party according to the state lists / second votes. An intermediary result “minsitzeproland” is calculated where the maximum of seats per direct or second votes is taken which is now the minimal amount of seats a party gets in each state.

Step 3:

The size of the Bundestag is calculated, so that every party receives their minimal amount of seats and at the same time each party gets an amount of seats appropriate to their second vote count.

Step 4:

Party seats are allocated to federal state lists and screened by rank. View “bundestag” is created.

General Process:

The overall calculations can be done relatively easy, except the Divisor needed for Sainte-Lague method. The divisor is calculated by dividing and incrementing/decrementing until the divisor is found where the required number of seats per federal state (Step 1) or the minimal amount of seats per party (Step 3) is reached.

Description of Views:

* **Btmandatepartei** – number of seats per party in bundestag (uses *f:getdivisormaxbt* & zweitstimmenproland)
* **Bundestag** – list of bundestag members (uses *f:getzweitbt* & direktmandate)
* **Closest** – closest winners/losers
* **Direktmandate** – gets directly voted applicants
* **Legaleparteien** – gets legal parties 5% or 3 direct mandates (uses direktmandate)
* **Minsitzeproland** – minimal amount of seats per party/state (uses *f:generaterealsitzeproland*) either direct or as second vote without supplementary seats
* **Numdirektmandatebw** – number of direct mandates per party
* **Parteimandateproland** – number of mandates per party/state with supplementary seats (uses *f:mandateproland*)
* **Resultmitgliederbt** – list of members of the bundestag
* **Resultsitzverteilung** – allocation of seats per party
* **Sitzeproland** – seats per federal state (uses *f:schnitt01*)
* **Wksieger** – winning party for first/snd vote for each constituency
* **Zweitstimmenproland** – second votes per party/state

Description of Functions:

* **Generaterealsitzeproland** – gets the number of seats per party/state (uses *f:getdivisor2snp* to calculate the divisor for a given state)
* **Generatetokens** – function to generate the voting tokens with simple increment
* **Getdivisor2snp** – calculates the divisor for a federal state (uses *f:utilsnp* to calculate the indermediary divisor)
* **Getdivisormaxbt** – get the divisor (uses *f:utilbtg* to calculate the number of missing mandates)
* **Getzweitbt** – gets the people on federal state lists who didn’t win direct mandates but have a rank high enough to get into bundestag
* **Insertstimme** – function to insert a new vote into tokens
* **Mandateproland** – get number of mandates per country/party, direct or of second vote (uses f:utilmpl to check if the divisor is right)
* **Schritt01** – calculates the number of seats per state
* **Utilbtg** – gets a list of second votes, the target amount of mandates and the current divisor and returns the number of missing mandates
* **Utilmpl** – calculates the accumulated number of seats per party/state
* **Utilsnp** – calculates the accumulated number of seats given a divisor