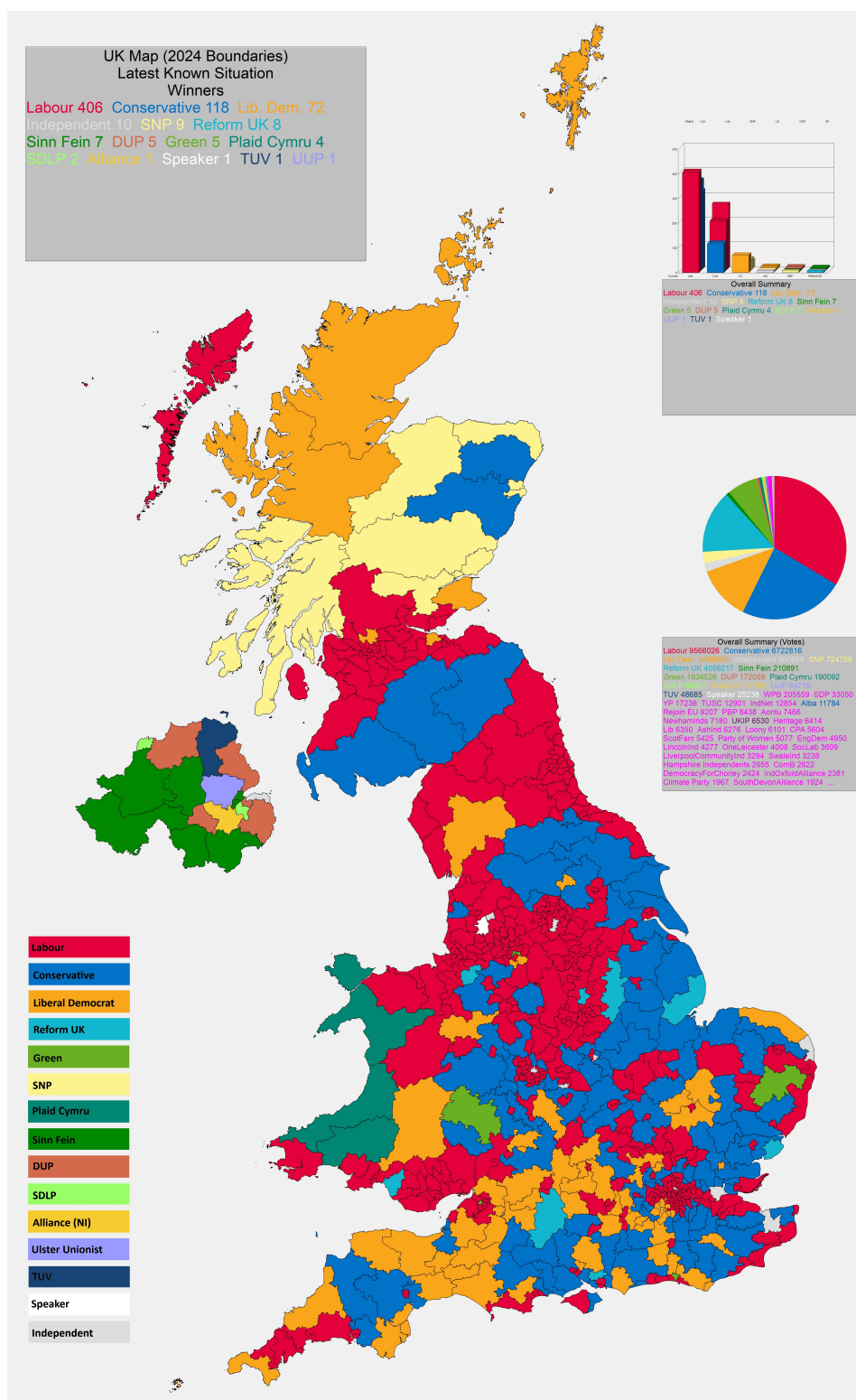


UK-ELECT



DISCLAIMER

All of the information contained in the data files associated with this program has been checked and is believed to be accurate. However, it is inevitable given the quantities involved that one or more mistakes may have been made. UK-Elect is supplied "as is". No liability can be accepted for consequential, incidental, or other damages resulting from use of this program or its associated data. No liability can be accepted for forecasting the result of an election wrongly, or for forecasting a result differently from that hoped for by the user. No responsibility or blame can be accepted for the actual result of any election.

UK-Elect is continually being improved; therefore, the current version of UK-Elect may include additional features. Similarly, earlier versions may not contain all the functionality covered in this manual.

Please notify the authors immediately of any obvious errors. Notified errors will be corrected in subsequent releases.

SUPPORT AND UPGRADE INFORMATION

For support and upgrade information please contact:

Web site: <http://www.ukelect.co.uk>
Facebook: <http://www.facebook.com/ukelect>
Email: support@ukelect.co.uk

EXPERT ADVICE

Advice from psephologists, politicians, and other poll- watchers, amateur and professional, local and national, is always welcome. Special thanks to Bob Maddock of Southampton Liberal Democrats, and Gary Booth of the Labour Party Merseyside office, for responding to the original letter sent to all major parties asking for information on elections. Thanks also to Colin Rallings and Michael Thrasher of the Local Government Chronicle Elections Centre at Plymouth University for providing information on the best source of local election results.

ACKNOWLEDGEMENTS

The original drafts of the first version of this Manual were largely written by Martin Harriman. Thanks for some splendid work, Martin!

2016 Brexit leave vote estimates were primarily based on the work by Chris Hanretty: "Areal interpolation and the UK's referendum on EU membership", Chris Hanretty, Journal of Elections, Public Opinion and Parties.

LICENCE

The arrangement of all information contained in UK-Elect data files should be regarded as (c) UK-Elect 2026 unless otherwise indicated and data should not be redistributed without permission. Predictions produced by UK-Elect may be freely redistributed subject to acknowledging the source.

This product contains portions of data and maps subject to the following licence:

ORDNANCE SURVEY DATA LICENCE

Use of OS OpenData is subject to the terms at www.ordnancesurvey.co.uk/opendata/licence
Contains Ordnance Survey data © Crown copyright and database right 2014-2025.

Contains public sector information licensed under the Open Government Licence v3.0.

The file licence.txt installed with UK-Elect (in the main UK-Elect installation folder) and the Licence Information option on the UK-Elect Help menu provide further licence details and acknowledgements.

COPYRIGHT

(c) T.P. and J.C. Bickerstaff 1991-2026

THANKS

Thanks to **all** those people who have supported the development of this product over the years, giving help, encouragement, and advice – and pointing out the occasional issue. You know who you are.

And yes, that includes you Martin, Kevin, Peter, Ivor, Paul, Jack and Fr. Bonifatius!

This version is in memory of Harry Hayfield, dedicated follower of elections and friend I never met.

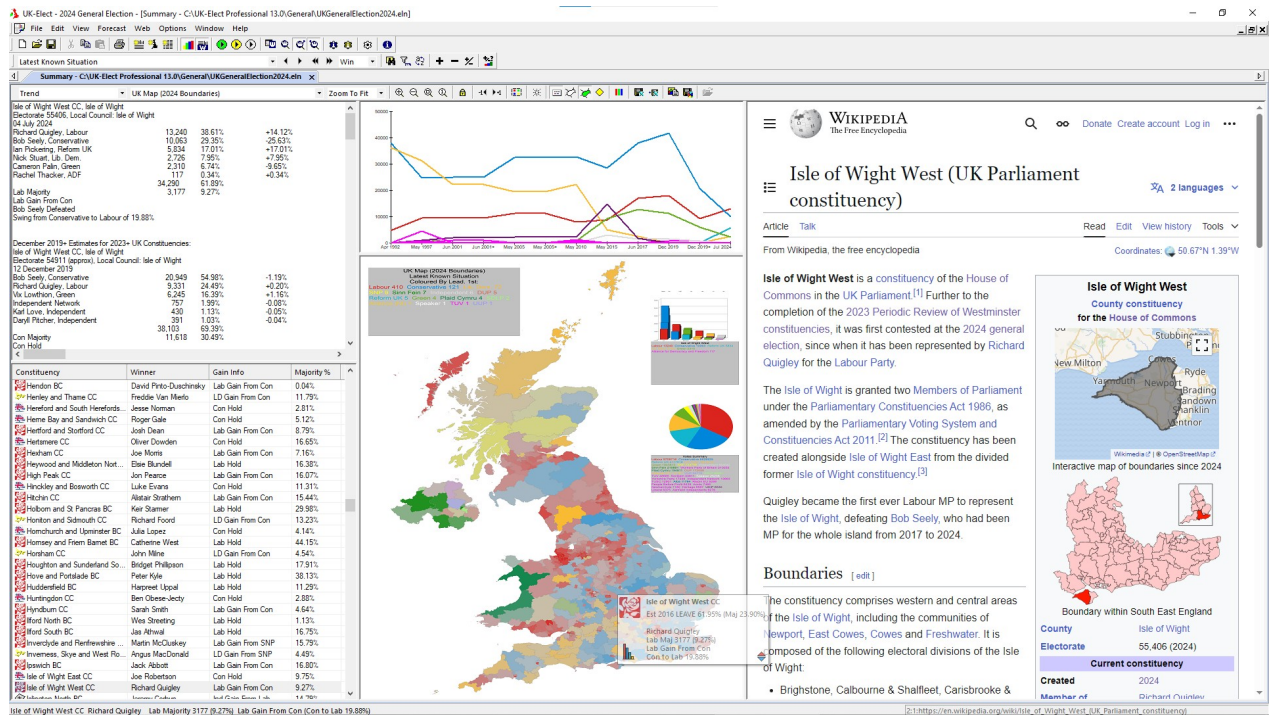
Contents

1.	Introducing UK-Elect.....	4
2.	Getting Started	7
2.1.	System Requirements.....	7
2.2.	To Install and Run UK-Elect from a Setup File (e.g. a .MSI file).....	7
2.3.	To Install and Run UK-Elect from a Zip File	7
2.4.	To Install and Run UK-Elect from CD	7
2.5.	About This Manual	7
3.	Forecasting Election Results.....	8
3.1.	Making a Quick Guided Forecast	9
3.2.	Configuring the Forecast.....	12
3.3.	Specifying the Forecasting Method	13
3.4.	Custom Forecasting Configuration	18
3.5.	Tactical Voting and Incumbency	20
3.6.	Setting the Forecasting Electoral System	22
3.7.	Forecasting.....	24
3.8.	Converting a Previous Election to a Different Electoral System.....	25
3.9.	Matching Seats.....	25
4.	Viewing / Analysing Election Results and Forecasts	26
4.1.	Opening an Election File	26
4.2.	Viewing and Analysing Elections.....	26
4.3.	Searching for Candidates, Constituencies etc.....	27
4.4.	Filtering Constituencies	28
4.5.	Choosing Whether to Display Constituency, Regional, and Area Summaries.....	32
4.6.	Controlling Colouring of Maps and Graphics	33
4.7.	Map Marker Symbol and Text Display	37
4.8.	The Summary Window	40
4.9.	Configuring the Web Browser Control.....	44
4.10.	Web Browser Address Configuration.....	45
4.11.	The Detailed Results Viewer / Importer / Exporter Window	47
4.12.	The Map Window	52
4.13.	Comparing Different Elections, Forecasts etc.	57
4.14.	Display and General Settings.....	58
4.15.	Overall Appearance – Tabbed Views, etc.....	60
5.	Using UK-Elect on Election Night	61
5.1.	Hints and Tips.....	61
6.	Adding / Modifying Election Results	62
6.1.	Creating a New Set of Election Results.....	62
6.2.	Adding and Editing Regions, Counties and Districts	65
6.3.	Modifying Map and Chart Configuration	67
6.4.	Adding a New Constituency	69
6.5.	Modifying a Constituency.....	70
6.6.	Deleting a Constituency	70
6.7.	Modifying a Result	70
6.8.	Adding a New Result.....	72
6.9.	Deleting a Result.....	74
6.10.	Adding/Modifying a Party or Party Group	74
6.11.	Adding an Election	77

6.12. Removing an Election.....	78
6.13. Vote Transfer Preferences.....	79
6.14. Changing Key Election Settings, and Importing and Exporting Data.,	80
6.15. Updating After a New Election (e.g. a General Election) is Completed	82
6.16. Boundary Changes.....	82
6.17. Exporting / Importing Estimated (Notional) Results	85
APPENDIX A: FORECASTING METHODS.....	86
Uniform National Swing (UNS)	87
Proportional.....	87
Proportional Loss	88
Proportional Loss With Threshold.....	89
UK-Elect Method.....	90
Custom / User - Configurable Method.....	90
UK-Elect Experimental Method	91
Other Methods: Multi-level Regression and Post-Stratification (MRP).....	91
APPENDIX B: ELECTORAL SYSTEMS.....	92
Electoral Systems Supported by UK-Elect.....	92
First Past The Post	92
Additional Member System	92
Party List.....	93
Alternative Vote.....	93
Two Round.....	93
Single Transferable Vote	93
Supplementary Vote.....	93
Alternative Vote + AMS.....	94
Conversions Between Electoral Systems.....	94
APPENDIX C: FILE FORMATS.....	95

1. Introducing UK-Elect

UK-Elect is a comprehensive election viewer and analyser that enables easy and sophisticated forecasting of all elections that use any UK or similar electoral system. UK-Elect blends stand-alone Windows application power with a wide range of integrated web resources. Through the modern built-in web-browser control it can provide the hub of your online election experience.



With UK-Elect you can:

- analyse past election results (including referendums) and forecast future elections.
- simulate tactical voting, the incumbency advantage, and the use of different electoral systems including First-Past-The-Post, the Additional Member System, Party List, the Single Transferable Vote and the Alternative Vote (also known as Preferential or Ranked Choice Voting) system.
- examine UK and international election results and forecasts graphically using maps and charts.
- easily and automatically browse online information available from multiple other sources, e.g. Wikipedia, news, political, and electoral websites, alongside data available within UK-Elect.
- Create your own UK, local, and foreign election files, using them to analyse and display data.

UK-Elect includes:

- 1983 to 2024 UK General Election results, and a summary of General Elections since 1900
- Estimated results for the 2019 General Election as if they had used the 2023+ UK boundaries.
- 1984, 1989, 1994, 1999, 2004, 2009, 2014 and 2019 UK European Parliament results
- 1975 and 2016 European, 1997 and 2014 Scottish, 1997 and 2011 Welsh, and 2011 Alternative Vote referendums.
- 1999, 2003, 2007, 2011, 2016 and 2021 Scottish Parliament and Welsh Assembly results
- 2000, 2004, 2008, 2012, 2016, 2021 and 2024 London Assembly and Mayoral results
- 2003, 2007, 2011, 2016, 2017 and 2022 Northern Ireland Assembly results

Note: The UK-Elect General Elections Edition only includes General Election related results

The Pro Edition also includes:

- 2012, 2016, 2020 and 2024 US Presidential Elections,
- 2014, 2016, 2018, 2020, 2022 and 2024 US Senate Elections,
- 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024 and 2025 US Gubernatorial Elections
- 2024 Irish General Election results (Dáil Éireann)
- Over 500 sets of UK local election results, from 1990 to 2025.

UK-Elect supports many types of election:

- UK General Election
- European Parliament
- London, county and local councils (including those that use the STV system)
- Scottish Parliament, Welsh Parliament (Senedd Cymru), and Northern Ireland Assembly
- Referendums
- Many other types of UK and non-UK elections can be created and viewed, including those using mixed electoral systems (e.g. some historical elections) and block / electoral college systems such as U.S. Presidential Elections.

Analyse results in many ways:

Results can be filtered and sorted by, for example, swing percentages. If you want to display on a map all seats where Labour is less than 500 votes behind the Tories, UK-Elect is the tool to use.

Export and Import data:

Results and other data viewed within UK-Elect can be exported as comma separated files for use by, for example, standard spreadsheets such as Excel. Data can also be imported into UK-Elect using the comma-separated file format.

Display results in many ways:

UK-Elect includes a multitude of ways of sorting, filtering, displaying, and charting results and other data.

Up-to-date built-in Web Browser Control:

The fully integrated Web Browser control can be used to browse election-related information, maps and data online, and be synchronised with the constituencies and elections displayed within UK-Elect, so that clicking on one (to select a different constituency) also updates the other. The links between constituencies and web pages are user-configurable, so that connections can be made to the website of your choice, such as Wikipedia, the BBC, Democracy Club (WhoCanIVoteFor.co.uk), Electoral Calculus, UK Polling Report, or the website of your choice.

UK-Elect includes a large amount of fully integrated web links to political, electoral, and official sites, making it easy to bring together information from multiple sources.

The screenshot displays the UK-Elect software interface, which is a web browser control showing election-related information. The main window is titled "UK-Elect - 2019 General Election - Summary - c:\UK-Elect Professional 12.0\General\UNGeralElection2019.eh". It features a 3D bar chart showing the results of the 2019 General Election for Ynys Môn (UK) constituency. The chart shows the Conservative Party (Cons) winning with 12,569 votes (50.94%), followed by Labour (Lab) with 10,991 votes (44.12%), and the Liberal Democrat (Lib Dem) with 2,184 votes (8.94%). The map shows the constituency boundaries in Wales. The right sidebar displays the Wikipedia page for Ynys Môn (UK) constituency, which is currently showing the 2019 election results. Below the main window, there is a section for the 2024 Irish general election, showing the results of the 34th Dáil. The table lists the candidates and their parties, along with the number of votes and the percentage of the total vote. The table also includes a section for the 2024 Irish general election, showing the results of the 34th Dáil. The table lists the candidates and their parties, along with the number of votes and the percentage of the total vote.

Constituency	ID	Winner	Gain Info
Overall Summary (Single Transferable Vote)	1	John McGuinness	MD (Ranna Fál 1st)
Carlow-Kilkenny	2	David Maxwell	Fine Gael 1st
Cavan-Monaghan	3	Tony Doyle	Ranna Fál 1st
Clare	4	James O'Connor	Ranna Fál 1st
Cork East	5	Thomas O'Leary	Sinn Féin 1st
Cork North-Central	6	Andrea Ní Mhaoldúgha	Ranna Fál 1st
Cork North-West	7	Michael Martin	Ranna Fál 1st
Cork South-Central	8	Michael Collins	Sinn Féin 1st
Cork South-West	9	Pease Doherty	Sinn Féin 1st
Donegal	10	Gan O'Callaghan	Sinn Féin 1st
Dublin Bay South	11	James Gallagher	Fine Gael 1st
Dublin Central	12	May Lou McDonald	Sinn Féin 1st
Dublin Fingert East	13	Damph O'Brien	Ranna Fál 1st
Dublin Fingert West	14	Louise O'Reilly	Sinn Féin 1st
Dublin Mid-West	15	Eoin O'Brien	Sinn Féin 1st
Dublin North-West	16	Pádraic Kirby	Sinn Féin 1st
Dublin Rathfarnham	17	Neale Richmond	Fine Gael 1st
Dublin South-Central	18	Catherine Arden	Ranna Fál 1st
Dublin South-West	19	Sarah Gannon	Sinn Féin 1st
Dublin West	20	Jack Chambers	Ranna Fál 1st
Dún Laoghaire	21	Jennifer Carol MacNeill	Fine Gael 1st
Galway East	22	Sarah Gannon	Sinn Féin 1st
Galway West	23	Michael Fennell	Sinn Féin 1st
Kerry	24	Michael Healy-Rae	Sinn Féin 1st
Wicklow	25	James Leahy	Ranna Fál 1st

2. Getting Started

2.1. System Requirements

UK-Elect requires:

- Microsoft Windows 10 or later (it may work on earlier versions, but this is no longer tested)
- Use on some Apple Macintosh and Linux computers is possible via a suitable Windows Emulator (e.g. Parallels on the Mac), but this operation cannot be guaranteed. If you would like to try this (and receive a refund if it doesn't work) then please ask.
- A monitor with resolution of at least 1280 x 1024 (the higher the resolution, the better)

2.2. To Install and Run UK-Elect from a Setup File (e.g. a .MSI file)

1. Follow the supplied instructions. If no instructions are provided simply run the supplied setup file (e.g. by double-clicking on it).

2.3. To Install and Run UK-Elect from a Zip File

1. Unzip the file using your preferred unzipping tool – e.g. click on it with the right mouse button and select the extract option. Once all the files have been extracted to a folder, run the setup file from that folder.

2.4. To Install and Run UK-Elect from CD

1. Insert the CD into your CD drive. The CD should automatically start the installation program.
2. As an alternative, use the Windows Start button, select **Run...** and type **d:\install\setup**, where d: is replaced by the appropriate drive character.
3. After completing the installation routine, double-click on the UK-Elect icon in the UK-Elect group that will have been added to the Start menu.
4. If there are any problems with installation, then UK-Elect can also be run directly from the CD (run **d:\ukelect\ukelect**, where d: is replaced by the appropriate drive character), or the contents of the Ukelect directory copied onto the hard drive.

2.5. About This Manual

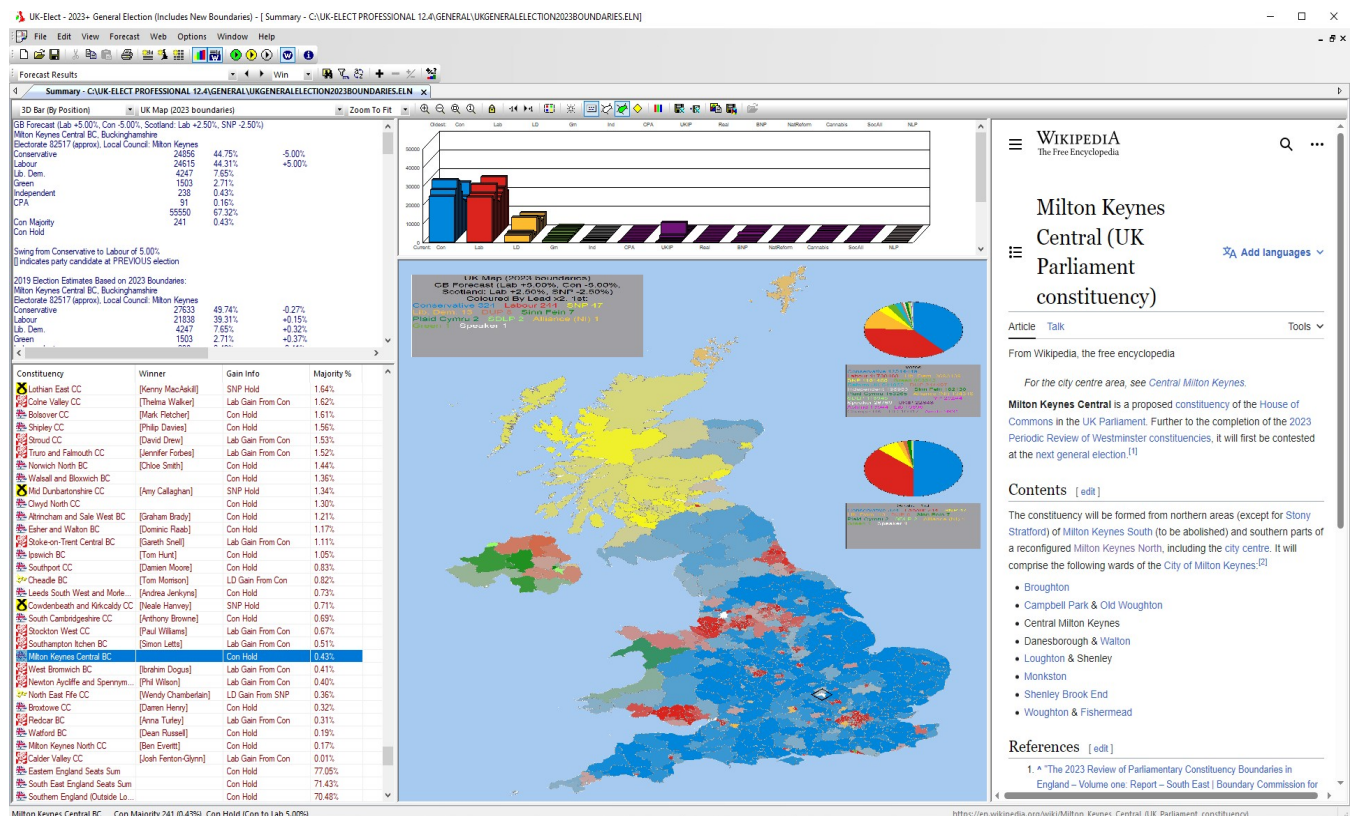
UK-Elect is continually being improved, therefore the current version of UK-Elect may include additional features. Similarly, versions earlier than the current version may not contain all the functionality covered in this manual. In addition, not all Editions of UK-Elect contain all the features found in the Professional Edition, e.g., the General Elections Edition primarily contains material related to General Elections, and the Trial Version (when available) contains a subset of the election results and maps found in the General Elections Edition.

Please note that the most up to date version of this manual is generally available from the downloads page on the www.ukelect.co.uk website. If there are any features in UK-Elect not covered by this version of the manual, then it is worth checking online for an update.

3. Forecasting Election Results

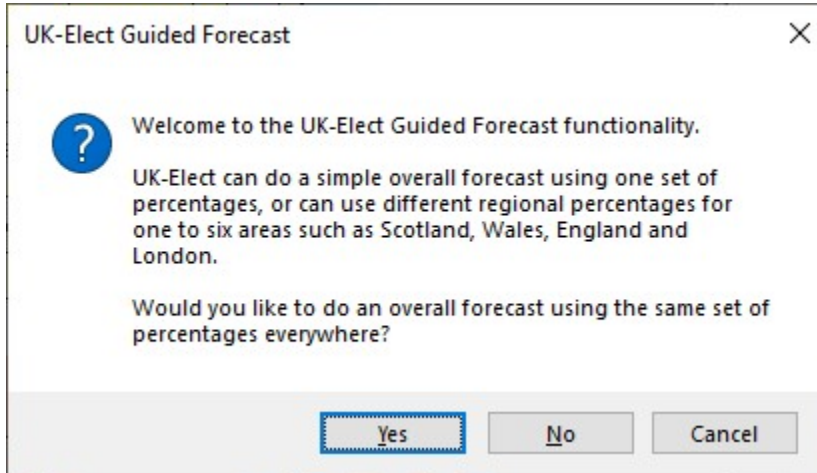
Using UK-Elect it is possible to forecast the results of any UK election and some international elections (e.g. including Scottish Parliament, Welsh Assembly, Northern Ireland Assembly, UK European Parliament (when the UK was part of the EU), London, and Scottish/English/Welsh local council elections as well as UK General Elections, US Presidential, US Gubernatorial Elections and Republic of Ireland (Dáil Éireann) General Elections). Electoral systems supported include First Past the Post, Additional Member (AMS), Party List, Single Transferable Vote (STV), Supplementary Vote (SV), Alternative Vote and Two Round. UK-Elect supports six main types of forecasting method - Uniform National Swing, Proportional, Proportional Loss, Proportional Loss With Threshold, a UK-Elect specific method, and Custom (which provides access to all settings and to a further UK-Elect “Experimental” method), and provides a wealth of options to fine-tune forecasting, including support for statistical seat probability calculations, and support for forecasting based partly on local opinion polls. Details of these methods are given in Appendix A. Generally, the Uniform National Swing method is a “safe” method, unlikely to produce wildly wrong results, and is the method favoured by many “serious” psephologists and political scientists. Proportional methods (especially the proportional loss with threshold method variant called the Strong Transition Model) also proved popular online and in the media in some past elections, with advocates claiming more accurate results are achieved using them. The discussion is ongoing, but with UK-Elect it is possible to easily try the various alternatives.

Example of a simple Uniform-Swing based forecast:

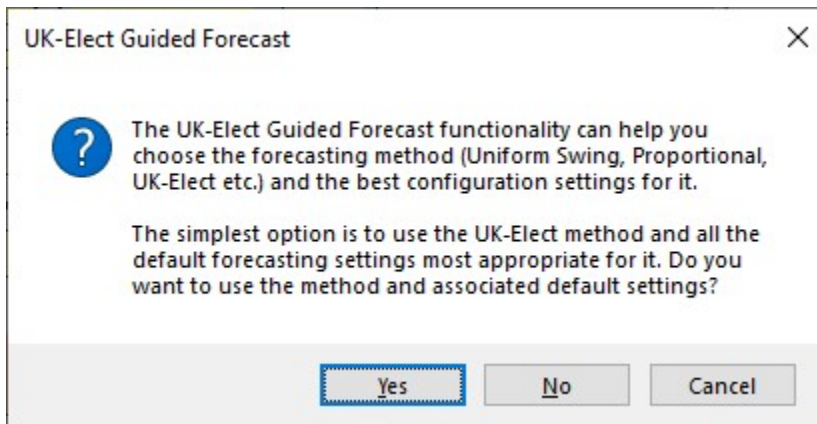


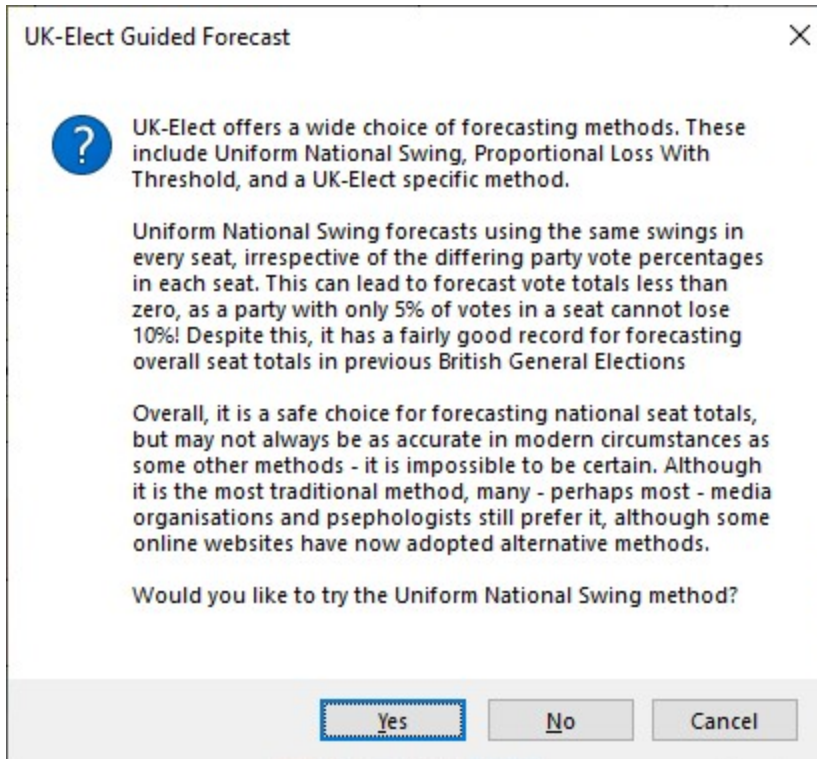
3.1. Making a Quick Guided Forecast

To make a quick forecast, with guided prompts, simply start UK-Elect and make sure a suitable election file is loaded, e.g. the 2024 UK General Election file (UKGeneralElection2024.eln) can be used for forecasting the next General Election, or the 2021 Scottish Parliament file for forecasting the next Scottish Parliament results. Then choose the Guided Forecast option on the Forecast menu or press the green button on the main toolbar. The first Guided Forecast question box will appear.

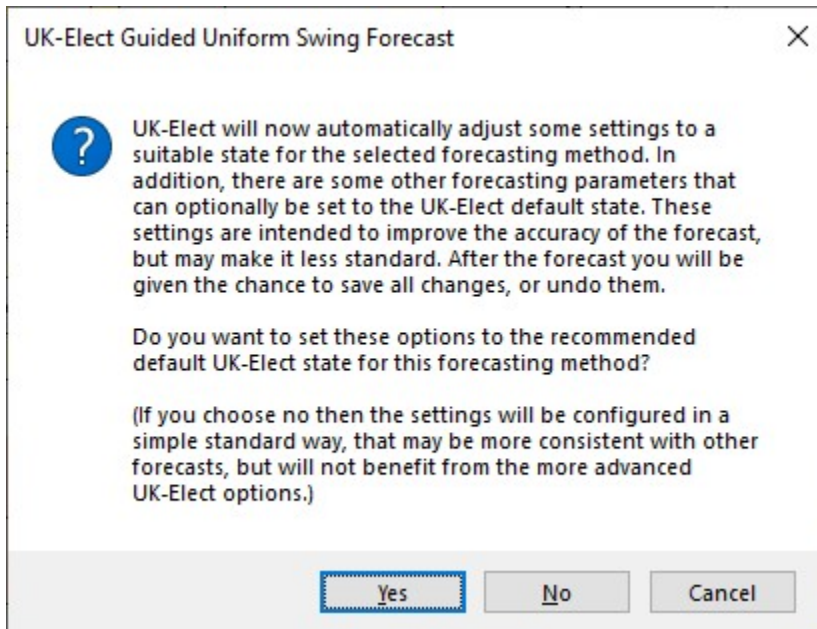


UK-Elect will ask you a series of questions, and will configure the forecasting options appropriately, prompting you to enter the opinion poll percentages when necessary.

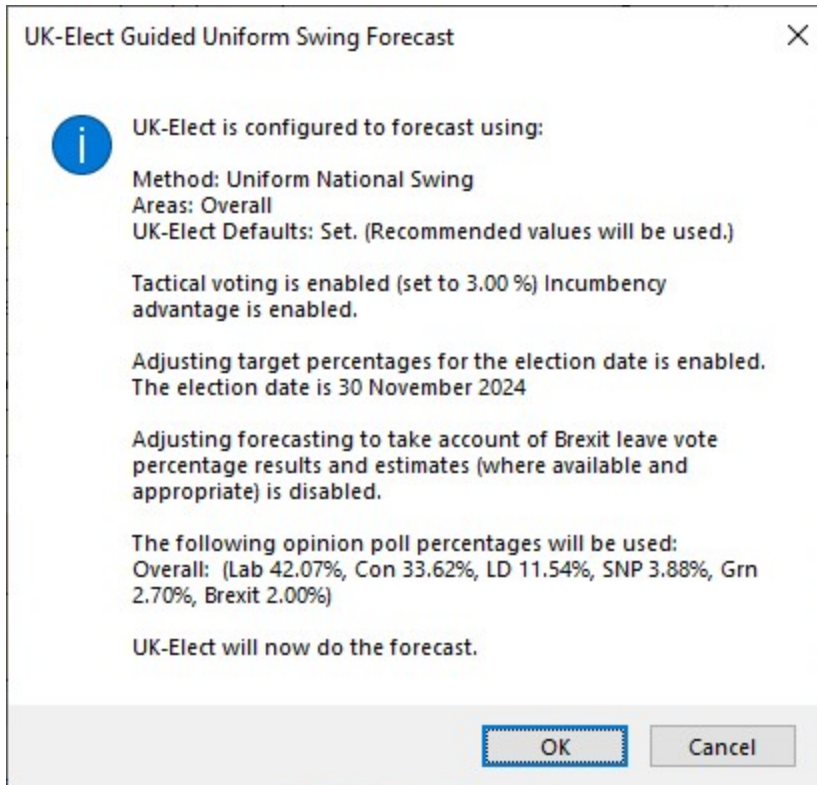




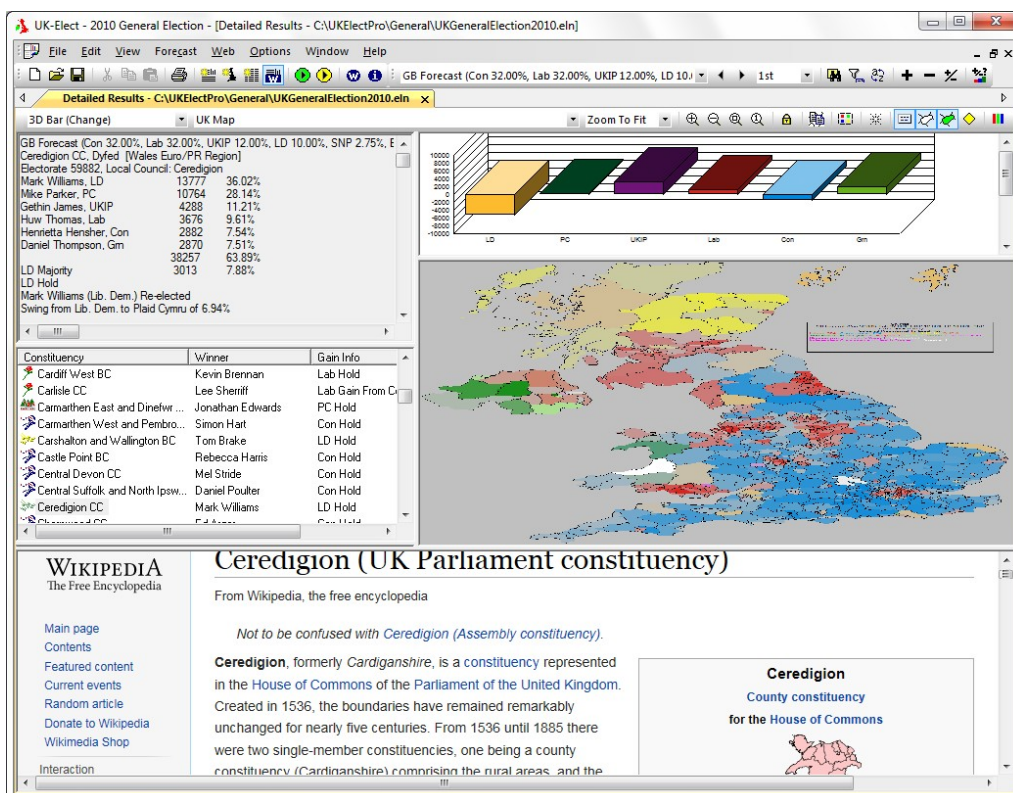
UK-Elect will offer the option to use the most appropriate values for your selected forecast type.



After all the questions have been answered, and opinion poll data entered, UK-Elect will provide a summary of the current configuration.



The forecast will then be made for the areas that you have selected using the forecast settings which you have chosen.



UK-Elect will then offer the option to save the newly edited settings, which can then be accessed on the Forecasting Configuration dialog. A forecast can always be made based directly on this current forecast configuration, by choosing the normal 'Forecast' option on the forecast menu or pressing the yellow button on the main toolbar.

For details of how to view and analyse this and other forecasts and previous results see Section 4. To learn more about configuring election forecasts, see the rest of this section.

3.2. Configuring the Forecast

The percentages associated with the forecast can be entered via the **Forecast/Opinion Poll Percentages** menu options, for the overall summary and for individual regions – including, in the case of AMS elections such as those for Scotland, Wales and London, for the overall AMS regional vote total. As well as opinion poll percentages, actual percentages generated at a previous election can also be loaded, on a UK, GB, filtered or regional basis.

Overall Poll Percentages

Party:

<Lib. Dem.>

<Brexit Party>

<Conservative>

<Labour>

<Change UK - TIG>

<SNP>

<UKIP>

<Green>

<Plaid Cymru>

<Any Party>

Percentage:

24

22

19

19

5

3.11

3

1.65

0.52

0

Others:

2.72

Forecasting/Conversion Base Election

☒ Default (previous complete election or UK-Elect notional result set)
 ☐ Specific

June 2017 General Election

☒ Use AMS Poll Percentages for forecasting AMS Regions

Local -> National %

National -> Local %

Load Local/Nat Conversion Base %

Save Local/Nat Conversion Base %

Load Current Filter %

Load Base Election %

Load Base Election GB %

Load Base Election Filter %

Load Base Election Regional %

Load Current Regional %

OK

Cancel

Forecast Now

Configuration

Load Default %

Save As Default %

The opinion poll dialog (along with the forecasting configuration dialog) also provides a convenient means of selecting a “base election”. This (normally the previous election) is the election used as a forecast or electoral system conversion base, i.e., it is treated as if it was the previous election.

The percentages used for forecasting can be viewed via the **Forecasting Target Percentages** dialog. Target percentages can be opinion poll percentages, or result-based percentages, or a weighted mix of the two. The Forecast button can be used to make a forecast directly from the dialog. The Opinion Poll button gives access to the Opinion Poll configuration dialog. The Recalculate option recalculates the target percentages, according to current configuration settings. When using the Additional Member System (AMS), the AMS Regional Opinion Poll Percentages option can be used to configure the regional percentages (these can differ from the constituency percentages, since some people “split” their votes).

To do a detailed forecast using local poll percentages for a UK region or country such as Scotland, set the forecast area to regional and select "Scotland" (or Wales, etc.) Then go to the opinion poll percentages option on the Forecast Menu and press Last Election Regional % (to get last election percentages for the selected region) and enter the latest Scottish (or wherever) poll percentages. Then use the opinion poll based forecast option on the Forecast Menu to predict the results for the selected region.

To forecast a local (e.g. Council) election, load the relevant election results; then select the "opinion poll percentages" option from the forecast menu. If local opinion poll percentages are known, then they can be entered directly, and a forecast made. Alternatively, if the national percentages at the time of the last local election are known (e.g. from an election or opinion poll) then UK-Elect can be set up to automatically do a conversion. First, enter the national percentages from the time of the last local election and then use the “Save as Local/Nat Base %” button. Now you can enter current national poll percentages and then press the “Nat->Local%” button to convert them to current local percentages, which can be used for the forecast.

If forecasting an election that uses the AMS system (e.g. the Scottish Parliament or Welsh Assembly) it is important to make sure that the “Use AMS Regional Percentages” option is checked if regional poll percentages have been entered - otherwise the “main” opinion poll percentages will also be used for the AMS member forecasting.

3.3. Specifying the Forecasting Method

The choice of forecasting method, and all the forecasting parameters, can be configured via the **Forecast/Forecasting Configuration...** menu option. These options can look rather daunting at first glance but provide a wealth of configurability. **If you would just prefer to use a straightforward traditional forecasting method, then just press the “Simple” button** which will configure the settings for a simple form of Uniform National Swing. For a slightly more adventurous forecast (which attempts to better forecast most modern British elections) press the “Default” button which will set a few additional parameters to recommended values. For something still more different press the “Alternative” button and see which options it sets -you can read about them below.

Forecasting Configuration

Forecasting Method

☐ Uniform National Swing
☐ Proportional
☐ Proportional Loss
☐ Proportional Loss with threshold
☒ UK-Elect
☐ Custom / your own method

Forecasting/Conversion Base Election

☒ Default (e.g. prev. election/notionals) Class Num:
☐ Specific

Next Election Date (if known)

☐ Date:
☒ Adjust target percentages by date

Forecasting Area(s)

☐ Default (GB)
☐ All
☐ Filter Criteria:
☐ Region:

☒ Combine %s for:
☒ Scotland
☒ Wales
☐ England
☐ E&W
☐ London
☐ NI
☐ Other^
☒ GB

Source of Forecasting Target Percentages

☒ Opinion poll
☐ By-elections
☐ New results
☐ Constituency polls
☐ Selected by-elections
☐ Selected new results
☐ Selected constit polls
☐ Previous Election:
☐ Use GB Percs

☐ Election night (weighted opinion poll/new result mix): Opinion poll is worth how many results?

☐ Assume polls prompt using actual candidates in each constit.
☒ Use regional poll and target percentages for regional forecasts

Miscellaneous Forecasting Configuration (can apply to all methods)

Max iterations:
☒ Prevent negative votes
Tactical vote %
☒ Add incumbency percs
PL Threshold %

☒ Leave regional parties unchanged if target % not known
☐ Leave minor parties unchanged
☒ Leave speaker unchanged

☒ Use constit polls, weight: %, reduced by % p/day
☒ Adjust by change in opinion polls since constit. poll date

☒ Use by-elections, weight: %, reduced by % p/day
☒ Adjust by change in opinion polls since by-election date

☒ Auto-scale regional party (e.g. SNP) swings for national UNS swings
☒ Auto Adjust UNS For Parties In Constits. With Low Votes

☒ Consider Brexit leave %s Brexit related issues importance to voters 0 - 10
☐ Use Brexit tactical voting

☐ Assume candidates list is final (auto exclude/add parties)
☒ Enable constituency pacts between parties (uses candidate list)

Auto Add New Party / Candidate Settings

When not present and forecast vote increases add:
☒ Green
☒ Brexit Party / Reform UK
☐ UKIP

☐ <Any Party>
☐ <Any Party>
☐ <Any Party>

☒ Any party that increases its vote by at least %
☐ Check candidates list first

☐ Add "Others" automatically when total constit. vote change negative
☐ Display seat win probabilities

☐ Add negative "Others" when constituency vote total increases (corrects displayed UNS percentages)

☒ Auto-correct change in constituency vote total by scaling votes proportionally (will be applied last if required)

Forecasting Overwrite Settings

☒ Overwrite forecast results with known new results
☐ Include constit that are selected in totals, but do not overwrite prev forecast

☐ Reset constits outside forecast area to prev election result (so that, e.g., GB forecast will also reset NI constits to prev results)

Turnout (can optionally adjust forecast vote totals to achieve turnout)

☒ Allow to vary
☐ Force to prev.
☐ Base on new results
☐ %

Additional Forecast Notes / Diagnostics Display

☐ Display additional forecast notes on constits

OK

Cancel

Custom..

Tactical/Incumbency...

Advanced...

Simple (UNS)

Default

Alternative

- **Forecasting Method** - whether Uniform National Swing, Proportional, Proportional Loss, Proportional Loss with Threshold, a current UK-Elect-specific method (this may change and evolve between UK-Elect versions), or Custom, which allows additional options to be configured, (see Appendix A for a detailed discussion of the different methods). If you are not sure what option to choose then it is recommended that you use Uniform National Swing.
- **Forecasting/Conversion Base Election** – Can be used to forecast and/or convert between electoral systems based on a specific previous election. (The default is the previous election or notional result set.) An election class number can also optionally be specified (use 0 for default or N/A.) – this is used for a few elections, such as US Senate elections, but can be any number.
- **Election Date** – Date (if known) of the next election. If the “adjust Target Percentages When Forecasting” option is checked then the current opinion poll percentages will be blended with the party percentages recorded at the previous election, depending on how long it is until the next election (provided that the next election date is known). This reflects the fact that party support often returns closer to the level at the previous election during the run-up to a new election.
- **Forecasting Area** – whether to forecast on a UK, GB, filtered, regional or combined basis. GB is the normal default as most published opinion poll data in the UK is GB only (as politics in Northern Ireland is quite distinct). There is also a highly convenient combined forecasting option which will automatically forecast one or more selected regions first using the regional percentages, and then (optionally) Great Britain using the main percentages, and without overwriting the regional results. The opinion poll data for Scotland, Wales, London, Northern Ireland and any one other region is stored separately from the overall opinion poll data and can be accessed via options on the forecasting menu. When using the combine forecasting option these percentages are always used for the appropriate region, but if the forecast area is set to regional (e.g. to Scotland) then there is an additional option (located in the “Source of Forecasting Target Percentages” area) to use regional percentages for the forecast or to use overall percentages.
- **Source of Target Percentages** - whether to forecast using opinion poll, by-election, constituency opinion poll or result-based percentages, or a mix. It is also possible to forecast based on a selection of constituencies from any of these sources. An option can be set to use the regional percentages when forecasting a single region. (When forecasting using the combined GB/regional setting the regional percentages are always used for the regional forecast.) Note that the forecast target percentage calculations for the main poll percentages and the regional percentages are separate – e.g. if by-elections are set as the source, and the current region is Scotland then only Scottish by-elections will be used when calculating the regional percentages. Note also that for AMS elections (such as the Scottish Parliament) the regional opinion poll percentages are always used as the target regional percentages.
- **Assume polls prompt using actual candidates in each constituency** – whether the polls used as input prompted the voters with the actual local parties and candidates standing in each constituency. This can make a considerable difference to forecasting where a party is only standing in some constituencies – e.g. a party standing in 50% of constituencies and having an average support level of 8% in each would show as having 4% support overall. When forecasting where the final candidate list is known UK-Elect needs to know whether the national/regional polls take account of this factor.
- **Max Iterations** - this option allows the maximum number of forecasting iterations to be specified. Specifying a higher number will slow down forecasting but produce a more accurate result. After each iteration UK-Elect will add up the percentages and compare the total percentages for each party with the target percentages. Adjustments may then need to be made to achieve the correct result - this can be particularly important if tactical voting and incumbency has been allowed for.
- **Leave SNP/PC/NI parties unchanged if no target percentages not known** - this controls whether forecasts are made for the SNP, Plaid Cymru and the Northern Ireland parties even when the change in their votes is not known. If checked (or if the “leave minor parties unchanged” option is checked), then their votes in such cases will be left the same as at the previous election unless their vote is specified on the opinion poll dialog or calculated as one of the top values based on some past election. (In practice this option rarely affects the SNP as their votes are usually entered on the poll percentages dialog but does affect the others.) If unchecked, then forecasts will be made on the basis of overall changes in the other party vote totals. The normal default for this option is checked (on).
- **Leave minor parties unchanged** - if set, the votes for **all** non-major parties that do have their vote explicitly set will be left unchanged during forecasting, otherwise they will be adjusted proportionately. The normal default for this option is unchecked (off).

- **Tactical Voters Percent** - maximum percentage of people prepared to vote tactically. Where tactical voting occurs (see advanced settings below) this percentage of voters who would otherwise have supported third and subsequent candidates will switch to the party which was second placed at the last election. See Section 3.5 for details of tactical voting configuration.
- **Add Incumbency Percentages** – enables the use of additional incumbency percentages. See Section 3.5 for details of incumbency configuration.
- **Use Constituency Opinion Polls** – whether to use constituency opinion polls (accessed from the elections menu like by-elections) as part of the forecasting calculations. A weighting of 0 to 100% can be assigned to the polls, where 75% would indicate that the poll is given three times as much weighting as the initial forecast – so the final result would be heavily affected by the poll. The “**reduced by .. % p/day**” amount can be used to progressively reduce the weighting of individual polls over time, e.g. if a poll is 30 days old and this figure is set to 0.2%, then the weighting would be reduced by 6%, so if the original weighting was 75%, the new value would be 69%. The “**Adjust by change in opinion polls since constit. poll date**” option will, where data is available and included with UK-Elect, automatically take account of any change in the regional or national polls since the date when the poll was taken – e.g. if the national or regional Labour Party vote was 5% higher when the poll was taken than currently then this will be factored into the forecasting calculation.
- **Use By-elections** – works in the same way as the “Use Constituency Opinion Polls” option but with by-election results.
- **Calculate Seat Win Probabilities** – this option can be used to calculate and display the probability that a particular party will win a seat based on the forecast vote percentages for that seat – e.g. if the lead of a party is very large the probability will be close to 100%, but if it is narrow it might be less than 50% (The probabilities are displayed as percentages for convenience.) The algorithm used for this calculation is based on the Curtice/Firth method that has been used by the BBC for projections based on its exit polls, and the tuning constants are available on the advanced dialog.
- **Automatically Scale SNP And Plaid Cymru UNS Swings** – this option takes account of the fact that the SNP and Plaid Cymru only contest a fraction of the overall GB seats, converting their projected national swings from UK or GB figures to the Scottish or Welsh equivalents. If forecasting a General Election using UK or GB figures, and using a method that includes any UNS calculations, then this option needs to be set on.
- **Auto Adjust UNS For Constituencies With Low Votes** – this option switches to a ratio or partially ratio method for scaling party votes when a Uniform Swing element is in use, and the party vote in a constituency is declining and would end up at a very low or negative value. (This reduces the risk of zero or very low votes for a party, e.g. when its initial percentage is less than the UNS percentage reduction in national or regional votes.)
- **Use Brexit Leave Percentages** – this option takes account of the actual or estimated 2016 Brexit referendum leave percentages where available for a constituency. They are used to fine tune forecasting for the parties that campaigned on the basis of Brexit (the Brexit Party and UKIP), typically increasing or reducing their vote in proportion to the size of leave support in a constituency. Other parties will proportionally gain or lose as the inverse of this effect.
- **Overall Brexit Importance To Voters** – this option is used to scale the effect of forecasting using the Brexit referendum leave percentages. The range is 0 to 10, where 10 indicates that Brexit is seen as overwhelmingly the most important issue to voters, 8 as extremely important, 6 as very important, 4 as important, 2 as quite important and 1 as not important.
- **Use Brexit Tactical Voting** – if this is enabled then forecasting will assume that a percentage of people will vote tactically for either Leave or Remain supporting parties based on their stance on Brexit. The amount of this tactical voting will depend on the local constituency situation (whether inclined to leave or remain, and the anticipated margins between 1st, 2nd and 3rd parties) and on the overall Brexit importance to voters value (set by the option on the forecasting configuration dialog).
- **Auto Add New Parties/Candidates Automatically** – Allows automatic addition of UKIP, Green, Brexit Party and up to three other specified parties automatically. If the national vote for any specified party is forecast to increase, then candidates will be added automatically for it in GB seats where it did not previously have any. Any party that increases its vote by a specified percentage can also be automatically added. If the “check candidates list” first option is set, then a party will only be added if a named candidate exists in that constituency (in the list of candidates for the next election).

- **Add Others Automatically** – if the forecast vote total in a seat (after all other adjustments) is less than the target total (e.g. less than last time) then an “others” vote will be created which will bring the total votes up to the target level. Here “others” means “other votes” for indeterminate parties.
- **Assume Candidates List is Final** – this option will override the other automatic adding of parties options above. It basically will add a party during forecasting if a named candidate exists for it (in the candidates list) and the party doesn’t already exist. It will also remove parties which do not have a nominated candidate in a constituency for which a valid candidates list exists, and will redistribute that parties originally forecast votes according to a simple application of the party vote transfer preferences (e.g. if PartyA has the vote transfer to PartyB set to 40% then 40% of the PartyA votes would be transferred to PartyB in a constituency where PartyA was eliminated and PartyB remained). Any votes not specifically transferred to any other party will be redistributed in accordance with overall constituency vote preferences.
- **Enable constituency pacts between parties** – if this is set to enabled, and the candidates list for a constituency shows that one party has stood down its candidate in order to support another party, then forecasting will take account of this. (See the section on adding results for details of how to specify party pacts – basically the gaining party is specified as the candidate’s name preceded by an ‘>’ symbol.)
- **Add Negative Others Automatically** – this option is typically used with UNS forecasting in situations where the vote in a constituency may increase compared to the past election – consider, for example, a case where there is only one of the parties for which poll percentages have been added in a constituency, and that party is forecast to increase by 5%. Unless all the votes are scaled proportionally (see the auto correct change in constituency vote option) or the other parties are added (and given negative votes) then the new total votes for the constituency will be too large – and if all the parties are scaled proportionally to correct the constituency vote total then the gaining party will no longer gain 5% as its total vote will be reduced proportionally. If this option is set then in the case given “Others” will be added, and given a negative vote of 5%, and the displayed percentages for the other parties will look correct, although in fact it will make no difference to which party is forecast to win the seat.
- **Auto-Correct Change In Constituency Vote Total** – if set, this is applied after the other processing options have been processed. In each constituency UK-Elect will do a simple comparison between the total number of votes forecast and the total number of votes that there **should** be and will adjust the total to the correct amount by multiplying all the votes by the correct ratio. This option is particularly important with the Proportional method, as otherwise the forecast number of votes in each constituency would vary enormously!
- **Forecast Overwrite Settings**– these control whether an existing forecast for a constituency is overwritten when a new forecast occurs. If the “overwrite forecast results with known new results” is set, then any new forecast will not overwrite constituencies where the results are already known. If the “Reset constituencies outside forecast area” is set, then those constituencies will be reset to their previous election results, otherwise they will be left unchanged (e.g. as set by a previous forecast – this enables a series of individual regional forecasts to be made). If the “include constituencies that are selected in totals, but do not overwrite” is set, then those constituencies will not be overwritten but will be included in forecast calculations – this can be used to protect the forecast results for particular constituencies, or to do a national forecast after pre-forecasting one or more individual regions. Constituencies are selected via the Selections option on the Edit menu.)
- **Turnout** – turnout can be allowed to vary, set to the same as previously, to a particular percentage, or to a calculated value based on new results so far (e.g., on an election night). The default setting is “allow to vary” which means that the turnout percentage for any individual constituency can be allowed to change as a result of the forecast calculations (usually the change is by a relatively small amount) depending on the other forecasting configuration settings – e.g. blending results with by-elections and constituency opinion polls can affect the forecast turnout. Note that turnout adjustments are made by multiplying all of the forecast votes for a constituency by a correcting proportion to achieve the correct vote total.
- **Additional Forecast Notes / Diagnostics Display** – this option can be used to display additional notes about how a forecast was made for each constituency, for example whether incumbency criteria was used for a particular constituency, or the effects of tactical voting. If enabled, the information is found below each constituency forecast on the constituency view.

3.4. Custom Forecasting Configuration

Selection of the **Custom...** option will display the custom forecasting dialog, which provides a high degree of flexibility when configuring election forecasting:

Custom Forecasting Configuration

Custom Forecasting Method Configuration

UNS weighting: % for vote decreases: % for vote increases:

(Note that proportional weighting % is calculated as 100% - UNS weighting %)

☒ Do decreases first, redistribute losses to gainers (proportional loss method)

☒ When redistributing gains, redistribute missing parties gains to other gaining parties

Smaller Party Loyalty / Localised Strength / Incumbency Method Selection

☒ None

☐ Use weak/strong threshold, assuming stronger (more loyal) voters above:
(note: % is of total constituency voters, and is as used for prop. loss with threshold method)

☐ Use Smaller Party Loyalty / Localised Strength / Incumbency Settings (see below) %

Smaller Party Loyalty / Localised Strength / Incumbency Settings

Max voters especially loyal to previous winning party: % previous voters for party

Use max where a party has less than: % seats overall

Min % voters especially loyal to prev. winning party: % previous voters for party

Use min where a party has more than: % seats overall.

(will use linear scaling between minimum and maximum)

OK

Cancel

Tactical/Incumbency...

Advanced...

UNS

Proportional

Proportional Loss

PL With Threshold

UK-Elect 9.3

Experimental

- **UNS Weighting** - whether to use a Uniform Swing (add or decrease a parties votes by the same amount in every constituency), or a proportional method (multiply a parties votes in each constituency in proportion to its national vote increase or decrease), or a combination of the two. The weighting for increase and decreases can be specified individually. Note that the UNS percentage is specified, but that the proportional percentage is always (100% - UNS percentage).
- **Do decreases first, redistribute losses to gainers** – whether to calculate the total in each seat for the parties losing votes first, and then redistribute those votes lost to the parties gaining votes in that constituency. The alternative is to treat the two calculations as independent, which may mean that the number of votes lost and gained will be different (although this can be corrected by several of the other forecasting parameters on the main forecasting menu, such as the “auto-correct change in constituency vote total” option, or the “automatically add others” and “automatically add negative others” options.
- **Smaller party / loyalty / localised strength / incumbency method selection** – Historically proportional methods have proved to be very poor at forecasting the number of seats won by minor parties when their national vote is projected to decline. Using a strong/weak vote threshold (as used by the “Proportional Loss With Threshold” method), or more general localized strength settings provide a means to fine-tune the forecasting in this situation. Although UNS copes better with that situation, the smaller party / loyalty / localized strength / incumbency settings can be useful when in a situation where it is expected that winners from small parties will hold onto their seats extremely well even when their national party vote declines very considerably.
- **Smaller party / loyalty / localised strength / incumbency settings** – The settings define the number of voters “loyal” to the incumbent party. These voters are excluded from any vote losses – e.g., if the calculated percentage is 25% for a particular party, then previous winners from that party will have their vote loss reduced

by 25%. Note that in order to achieve the target percentages for that party, vote losses elsewhere (in seats they didn't win previously) will be increased to the extent necessary to balance the reduced vote losses. These settings can be used to generally protect the votes of incumbent parties, and the degree of protection can vary according to the number of winners (MPs etc.) that party has within the forecast area. This can make sense because it is often the case, for example, that individual MPs from smaller parties do better at combating a general vote decline for their party than individual MPs from larger parties, perhaps because they are more well-known. Note that the calculated proportions are for the forecast area, which is not always UK or GB, so that, for example, the Conservatives are treated as a minor party when forecasting Scotland. See Appendix A for more details of election forecasting methods.

As well as these settings there are buttons, which, if pressed, will set the custom settings to those values used by the named forecasting methods – e.g., pressing the “UNS” button will configure the settings to those used by UNS. (In fact, doing a custom forecast using UNS settings is the same as doing a UNS forecast.) The “Experimental” button represents an additional forecasting method currently being investigated, but the settings made by this are likely to vary considerably between versions of UK-Elect.

Selection of the **Advanced...** button will bring up the advanced forecasting menu

- **Results To Percentages Method** - whether to use actual percentages, or to use the change since the last comparable result (either as a ratio or a swing) to calculate what the results percentages really mean. This is used when forecasting on the basis of by-election or early general-election night results.
- **Seat Win Probability Calculation** - This is used to set the parameters used to control the Curtice / Firth statistical algorithm used to calculate seat win probabilities. As a general rule a higher value for the Sigma parameter indicates a lower confidence in the accuracy of the opinion poll data source and/or forecasting mechanism. The BBC used a value of 4 in 2005 when calculating seat win statistics based on their (very large) exit poll data. For more details see the detailed election forecasting discussion on the UK-Elect
- **Election Date Target Percentages Adjustment Calculation Method** - This option affects the target percentages used to make a forecast. It blends the current opinion poll percentages with the percentages

achieved by the parties at the previous election, depending on how long it is until the next election (provided that the next election date is known). This reflects the fact that party support often returns closer to the level at the previous election during the run-up to a new election.

3.5. *Tactical Voting and Incumbency*

Selection of the **Tactical / Incumbency...** option will display the Tactical Voting and Incumbency Configuration dialog:

Tactical Voting and Incumbency Configuration

Tactical Voting Configuration

Parties voted against tactically where 1st ☒ or 2nd ☐ or 3rd ☐ or 4th ☐

☒ Party that came first in previous election

☐ Specific party: <Conservative>

Winner's majority must be less than: 20 %

Second party must have lead of at least: 10 %

☒ Take account of party vote transfer preferences [Party Configuration](#)

Incumbency Advantage Configuration

☒ Add additional percentages to incumbent parties/candidates: [Party Percentages](#)

Default additional incumbency percentages for specific parties:
(Currently: UKIP 6.00%, Grn 5.00%, LD 3.00%, PC 3.00%, SNP 3.00%)

Default (e.g. for parties not specified above): 1 %

☒ Use these percentages where winner standing again: [Party Percentages](#)

☒ But only when first time winner (otherwise use above percentages)
(Currently: UKIP 15.00%, Grn 9.00%, PC 6.00%, SNP 6.00%, LD 5.50%)

Default (e.g. for parties not specified above): 2.5 %

☒ Use these percentages in seats where winner standing down: [Party Percentages](#)

(Currently: LD 0.00%, PC 0.00%, SNP 0.00%, Grn 0.00%, UKIP 0.00%)

Default (e.g. for parties not specified above): 0 %

Note: Additional corrector %s will be applied where necessary to keep % total correct for each party.

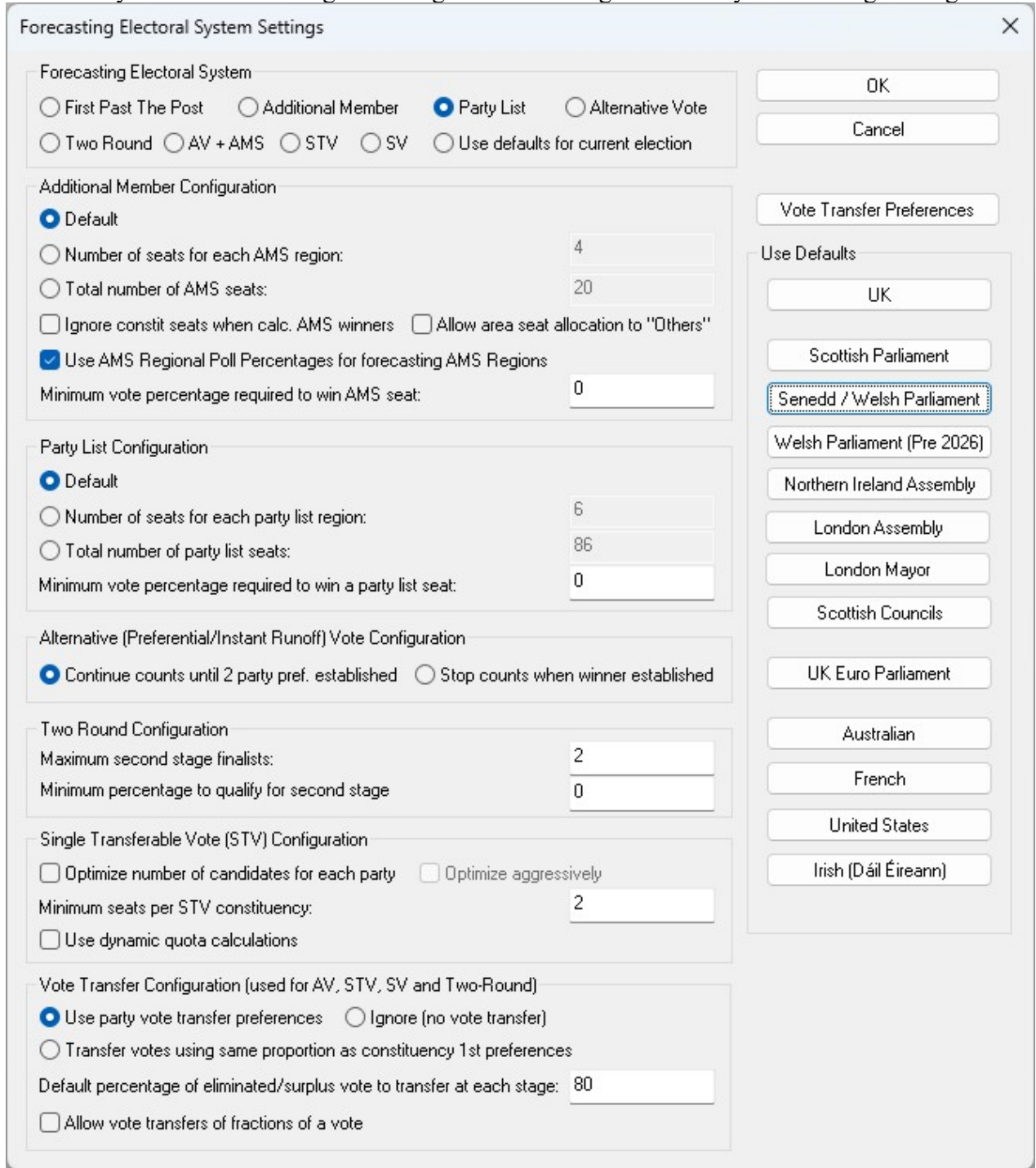
- Tactical Voting Configuration** - specifies which parties are voted tactically against, and the circumstances when tactical voting occurs - i.e. how small the majority (of the party voted against) must be, and how big the gap between the second and third parties must be (the second party will gain votes from subsequent parties), and whether to apply when the party voted against is 2nd and/or 3rd and/or 4th. In addition, vote transfer preferences can be taken into account. This works as follows: if the tactical voting contest is between PartyA and PartyB, and 100 votes would otherwise be redistributed from PartyC to PartyA for tactical reasons, and the relative support of PartyA and PartyB is defined in the vote transfer percentages for PartyC as 10% for PartyA and 40% for PartyB, then 20 votes would go to PartyA and 80 votes to PartyC.

- **Incumbency Configuration** – specifies whether an extra percentage should be added to the forecast percentage for the party/candidate that previously won the seat. Different percentages can be where a winner stands again, or stands down, or a percentage can simply be applied to the party total irrespective of whether the previous winner is standing again. If it is not known whether the previous winner is standing again, or if the “only when first time winner” option is checked, and the winner has won more than once before (i.e. is not defending a newly won seat) then these party percentages will also be used. (The “only when first time winner” option is available, and defaults to on, because some academic studies have suggested that the incumbency advantage is greater in the case of first-time winners.) Note that to allow for the increase in the party votes in the constituencies where it is the incumbent, the total for that party will be proportionally reduced in all seats, and then the incumbency advantage added back in where appropriate. This is to keep the forecast vote totals correct.

3.6. Setting the Forecasting Electoral System

UK-Elect can forecast what the result of an election would be if fought under the same, or a different, electoral system. To set the electoral system choose an option from the Electoral System submenu on the Forecast menu. (For more details of electoral systems see Appendix C.)

Electoral systems can be configured using the Forecasting Electoral System Settings dialog:



Forecasting Electoral System Settings

Forecasting Electoral System

☐ First Past The Post ☐ Additional Member ☒ Party List ☐ Alternative Vote

☐ Two Round ☐ AV + AMS ☐ STV ☐ SV ☐ Use defaults for current election

Additional Member Configuration

☒ Default

☐ Number of seats for each AMS region: 4

☐ Total number of AMS seats: 20

☐ Ignore constit seats when calc. AMS winners ☐ Allow area seat allocation to "Others"

☒ Use AMS Regional Poll Percentages for forecasting AMS Regions

Minimum vote percentage required to win AMS seat: 0

Party List Configuration

☒ Default

☐ Number of seats for each party list region: 6

☐ Total number of party list seats: 86

Minimum vote percentage required to win a party list seat: 0

Alternative (Preferential/Instant Runoff) Vote Configuration

☒ Continue counts until 2 party pref. established ☐ Stop counts when winner established

Two Round Configuration

Maximum second stage finalists: 2

Minimum percentage to qualify for second stage: 0

Single Transferable Vote (STV) Configuration

☐ Optimize number of candidates for each party ☐ Optimize aggressively

Minimum seats per STV constituency: 2

☐ Use dynamic quota calculations

Vote Transfer Configuration (used for AV, STV, SV and Two-Round)

☒ Use party vote transfer preferences ☐ Ignore (no vote transfer)

☐ Transfer votes using same proportion as constituency 1st preferences

Default percentage of eliminated/surplus vote to transfer at each stage: 80

☐ Allow vote transfers of fractions of a vote

OK

Cancel

Vote Transfer Preferences

Use Defaults

UK

Scottish Parliament

Senedd / Welsh Parliament

Welsh Parliament (Pre 2026)

Northern Ireland Assembly

London Assembly

London Mayor

Scottish Councils

UK Euro Parliament

Australian

French

United States

Irish (Dáil Éireann)

- **Forecasting Electoral System** – which electoral system to use. Note that “default for current election” means that the default settings for the currently loaded election will be used (e.g. FPTP for the House of Commons or AMS for the Scottish Parliament).
- **Additional Member Configuration** – “Default” indicates use the default seat-number settings for the currently loaded election file. If “Number of seats for each AMS region” is selected, then the specified number will be used for every region. If “Total number of AMS seats” is selected, then the specified number will be divided between the regions in proportion to the number of constituency seats in each region. If “Ignore constituency seats won when calculating AMS winners” is set, then no allowance will be made for how many constituency seats each party has won when calculating regional seat winners – normally this option is turned off, as the regional seats are intended to correct any imbalance in the constituency seats. If “Allow area seat allocation to Others” is checked then “Others” will be treated as one party for AMS area seat allocation purposes – this is normally not correct, so the option is unchecked by default. When “Use AMS Regional Poll Percentages for forecasting AMS regions is set” then the separate AMS regional poll percentages will be used for this purpose, rather than the main forecast percentages. The “Minimum vote percentage required to win AMS seat” represents the threshold below which a party is not entitled to win any regional seats even if otherwise entitled to do so – large parties tend to use this to exclude smaller ones in circumstances where there are many seats per region.
- **Party List Configuration** – the settings for Party List are a subset of those used for AMS – see the description for Additional Member Configuration for details of how to set these options
- **Alternative (Preferential / Instant Runoff) Vote Configuration** – if “Continue counts until 2 Party Preference established” is set, then counting and vote-redistribution will continue until only two parties are left. The alternative is “Stop counts when winner established”. Note that these options don’t affect which party wins, just the display of the final situation.
- **Two Round Configuration** – “Maximum second round finalists” controls the number of finalists. In some two-round systems this number is set to 2 – i.e., the final round is between the two leading candidates. Alternatively (or as well) the “Minimum percentage to qualify for second round” option can be used. Only candidates with this vote percentage, or above, will be eligible to take part in the second round of voting, which is held on a first-past-the-post basis.
- **Single Transferable Vote Configuration** – “Optimize number of candidates for each party” will automatically add or delete candidates if it might advantage a party to do so – e.g. if a party has a high percentage of the vote but only one candidate in a multi-seat constituency then one or more additional candidates (called “A.N.Other xxx”) will be created, whereas if the party has a low percentage and several candidates then one of them will be removed. The calculation is based on the initial projected vote totals (before transfers and other adjustments) therefore does not always result in an extra seat being won, but setting this option can make a significant difference to overall results. “Optimize Aggressively” uses a slightly different algorithm that creates more extra candidates, although these additional candidates often do not win any extra seats for a party and can lead to seats being won at a later counting stage than would otherwise be the case. “Minimum seats per STV constituency” ensures that each STV constituency has at least the specified number of seats. If converting to STV from some other electoral system it is recommended that this number is set to at least 2, and that the “Optimize number of candidates” option is turned on. The “Use dynamic quota calculations” can be set for those STV systems that recalculate the transfer quota after every round of vote counting – for most STV systems worldwide this option should be set to off.
- **Vote Transfer Configuration** – This is used for controlling the Alternative Vote (AV), Single Transferable Vote (STV), Supplementary Vote (SV) and Two-Round vote transfer that happens at the end of each stage (e.g. when a candidate is eliminated). If “Use Party Vote Preferences” is set, then the individual party vote transfer preferences will be used (see section 6.9). If “Ignore” is set then no votes will be transferred. If “Transfer votes using same proportion as constituency first preferences” is set then votes will be transferred in proportion to the 1st preference votes. The number of votes transferred

can be reduced by setting the “percentage to transfer at each stage” to less than 100% - this simulates people who do not put additional preferences on their ballot paper (the UK-Elect transfer default is 90%). Note: if there are any candidates of the same party as that from which the vote originates to whom votes could be transferred, then that transfer will take priority. Also, where two or more candidates from the same party are eligible to receive transferred votes, the transferred votes they receive will be proportional to the ratio between their relative 1st preference votes. . The ‘Allow vote transfers of a fraction of a vote’ is used during the STV vote transfer calculations at the end of each round of counting. For most STV systems worldwide this option should be set to off.

In addition to the various configuration options described previously, buttons can be used to set the configuration to that used in various electoral systems around the world – e.g. to the Alternative Vote (Preferential) system used in the Australian House of Representatives.

3.7. Forecasting

A forecast using the selected percentages and forecasting method will be performed on selection of the **Forecast**, **Opinion Poll Based Forecast** or **Swing Based Forecast** menu options. The Forecast option uses target percentages (see above), whereas the Opinion Poll Based Forecast uses unadjusted opinion poll percentages. The Swing Based Forecast allows the user to enter a figure for the swing between any two parties - other forecasting configuration can optionally be applied.

Configure Swing Percentages

Swing Configuration

Swing % 5

From <Conservative>

To <Labour>

Regional Swing Percentages

☒ Apply separate regional swing percentage to:

Scotland

Regional Swing % 2.5

From <SNP>

To <Labour>

☐ Apply Forecasting Configuration (forecasting method, tactical voting, max iterations etc.)

Forecast

Cancel

After making a forecast any open windows will be updated to show the forecast results. The results can then be reviewed in the future by selecting the **Forecast Results** option from the Election Results combo box.

Note: **When forecasting using the Single Transferable Vote, Alternative Vote and Two Round systems the Vote Transfer Preferences should also be configured (see section 6.9).**

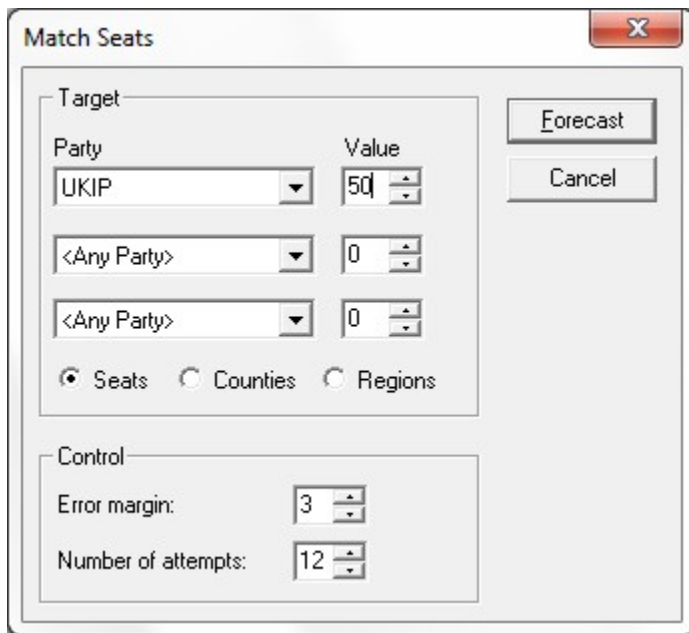
Because these preferences affect the forecast results, it is possible to get a range of different outcomes for the same opinion poll percentages – even if percentages corresponding to those that actually occurred at the previous election are used!

3.8. *Converting a Previous Election to a Different Electoral System*

To convert a previous election to a different electoral system, configure the electoral system, and then select the “Convert Base Election Results” option on the Forecast / Electoral System sub-menu. Note that the base election can be set via either the forecast configuration dialog or the opinion poll percentages dialog, and that it is usually important to consider (and possibly edit) the party vote transfer preferences (see section 6.9) in order to achieve a realistic result.

3.9. *Matching Seats*

A reverse forecast can be performed via the **Forecast/Match Seats...** menu option. A reverse forecast will calculate the party vote percentages required to achieve a particular result. It is possible to specify a degree of acceptable inaccuracy, i.e., an error margin of 5 linked to a required target of 300, would stop calculating when a total between 295 and 305 was achieved.



Options on the Match Seats dialog are:

- **Target** - specifies the name of the party and the required number of seats (or counties or regions) to be won.
- **Control** - specifies the degree of acceptable variation and the maximum number of iterations (progressively refined attempts) to calculate the percentage required to achieve the specified total seats (or counties or regions).

4. Viewing / Analysing Election Results and Forecasts

4.1. Opening an Election File

UK-Elect election files (*.eln) can be opened via the **File \ Browse...** or **File \ Open...** menu commands.

4.2. Viewing and Analysing Elections

Data associated with an election can be viewed in a number of ways using three types of display window: - the Summary Window, the Detailed Results Window and the Map Window. Access to all three windows is via icons on the control bar or the **View \ New** menu option.

All three types of window interact. If a constituency is selected by clicking on a map, for example, then it will automatically be highlighted in the Summary and Detailed Results windows.

=> To change the results being viewed

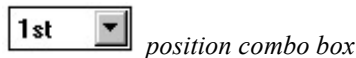
- From the results combo box, choose an alternative set of results.



The three display windows will update to show the newly selected results.

=> To change the position being viewed

- From the position combo box, choose an alternative position to view.



The three display windows will update to show the results associated with the newly selected position (e.g. constituencies on maps will be coloured accordingly).

As well as positions from “1st” to “20th” position options include “Win”, which is shows the “winner” of a constituency or election, which may be the party in first place, or, for councils etc, may cause constituencies to be greyed out if no party has an overall majority. A set of position options from “Seat 1” to “Seat 12” allow the colouring of map constituencies by the party that won that seat, which is useful in multi-member (e.g. AMS or Party List) constituencies. If the position does not correspond to a seat (e.g. position “Seat 2” for a constituency that only elects one seat) then the constituency will be greyed out.

4.3. Searching for Candidates, Constituencies etc.

=> To locate a constituency or a candidate

- From the Edit menu, choose Find.

The Find dialog will be displayed.

Find

Find what: Kemi Badenoch

☐ Match whole word only

Direction

☐ Up ☒ Down

Search

☐ All	☐ Constituencies	☐ Winners	☒ Candidates
☐ Regions	☐ Counties	☐ District/Unitary	☐ Wards
☐ Comments	☐ Tags	☐ ID2	☐ ID3

- **Find What** - specifies text to search for.
- **Search** - specifies the search area.
- **Also search..** – if this option is set then previous and future results for the constituencies displayed will also be searched (e.g. the results for those constituencies in any previous election)

4.4. Filtering Constituencies

Filtering can be used to show, for example, constituencies gained by Labour in Scotland in 2010, or constituencies where the sitting MP was defeated in 2005.

=> To filter

- From the View menu, choose Filtering.

The Filtering of Results dialog will be displayed.

- **Election Criteria** – specifies which election(s) the filter criteria conditions on this dialog will be applied to. This controls not only which constituencies are displayed but also potentially affects the results of overall swings etc. when displayed in the overall results summary. “All” means that the filter conditions are applied to the currently displayed election (and if the election displayed changes the tests will be applied to the new one) **and** the conditions are applied dynamically to any other elections referred to – e.g. in the constituency results view where overall results summaries also show the summaries for **previous** elections. As an example, if this setting is used, and the criteria is set to “gains”, then the first swing shown in the overall results view will be between the constituencies where gains occurred at the current election, and those where gains occurred at the previous election. Potentially, these are **not** the same constituencies. By contrast, if the criteria is set to “currently displayed” then the tests are always made for the currently displayed election, so the same constituencies will be compared in the results view history (unless boundaries have changed, in which case the most similar ones will be compared if the “use closes match when boundaries change” settings is applied). If the option is set to “specific” then the criteria is **always** applied to the election specified. This is useful to, for example, display what previously happened in those constituencies where gains occurred in 2010. If the “Use best match when boundaries change” setting is checked, then an attempt will be made to find and use the closest matching constituency even when relevant boundary changes have occurred between the specific election chosen and the current election.
- **Gain Criteria** - specifies whether to show only seat wins/gains/holds/losses generally or for a particular party. The option ‘All’ means is used to show all seats gained, held OR lost by the specified party, whereas ‘Changes’ displays just seats gained or lost (not held). ‘Not won’ display all seats not won by that party.
- **Area Criteria** - specifies whether to show results for a particular area. An area is typically a local council area (e.g. a London Borough), but not all election files include area definitions.
- **Election Class Criteria** - specifies whether to show only the results for a particular election class. This is used for a few elections, such as US Senate elections.
- **Regional Criteria** - specifies whether to only show results for a particular region / county or district. The Constituency Type field can be used to filter for Borough (mostly urban) or County (mostly rural) constituencies.
- **Constituency Name Criteria** – allows filtering by constituency name text – whether specified text is found in a constituency name or not found in a name. Case sensitivity of the checks can also be defined.
- **Tag Criteria** – specifies which results to show based on user-defined tags which can be assigned to constituency results. The presence and/or absence of one or more tags can be used to control which constituencies are filtered in or out. Tags can be assigned to the constituency information (in which case they can be used to filter constituencies for all results), or to a particular set of results, or to any combination.
- **Majority Criteria** - specifies whether to only show results where the winning majority conforms to chosen criteria such as being increased by a certain amount.
- **Swing Criteria** - specifies whether to only show results where the swing is more/less than a specified amount
- **Relative Party Vote Criteria** - specifies whether to only show results where the vote for a specified party (or any party) is more than the specified percentage of the vote of another party (or any party). Note that if both party selections are set to “any party” then no filtering will be done!
- **Vote Criteria** - specifies whether to only show results where the vote for a party is (or changes by) more/less than a certain amount. Can also be used to filter by turnout.
- **Incumbency Criteria** - specifies whether to only show results where the previous winning candidate stands again, or stands down, or is re-elected, or is defeated, or where the current winner was previously a candidate. The option to, if necessary, check two previous elections is useful in the common situation where boundary changes have occurred, and estimates are provided for what the result in a seat might have been as these estimates are usually party-based and often do not include candidates. This Incumbency Criteria option is used to, for example, check the (usually small) difference in swings between seats where MPs stand down and stand again. Note: the candidate initial and surname is used for the incumbency checking test, if these are entered inconsistently then a candidate standing again may be missed. To correct this, adjust one of the names and save the election file.

- **Skip by-elections** - specifies whether to ignore by-elections when comparing the current situation with a previous result (e.g. to decide if seat gained)
- **Include Only** - specifies whether to show only constituencies currently selected (using the selection options on the Edit menu), and/or whether to show only estimated/notional results
- **Reverse All** – Reverses the effect of all the filter settings
- **Exclude Hidden** – Excludes any constituencies that have been hidden
- **ID More Than / ID Less Than** – only constituencies with IDs within the specified range will be displayed.
- **Apply filter when calculating sums** – specifies whether filtered-out constituencies should be included in calculations

=> To filter by Party Position

- From the main filter dialog, or the View menu, choose Filter by Position.

The Filter by Party Positions dialog will be displayed.

Filter by Party Positions

Party Position Criteria

Criteria A: ☐ Reverse Logic (matches when party pos / seats criteria NOT true)
 Election: <Main Filter Election>
 Party: <Labour> Pos.: 1st Min Seats: 0

Criteria B: ☐ Reverse Logic
 Election: <Main Filter Election>
 Party: <Conservative> Pos.: 2nd Min Seats: 0

Criteria C: ☐ Reverse Logic
 Election: <Main Filter Election>
 Party: <Lib. Dem.> Pos.: 3rd Min Seats: 0

Criteria D: ☐ Reverse Logic
 Election: <Main Filter Election>
 Party: <Green> Pos.: 4th Min Seats: 0

Match Criteria: A and B and C and D

☒ Use best match when boundaries change

Filter Cancel

- **Party Position Criteria** – allows filtering by the position of a party in a constituency/area in a specified election, and/or by the number of seats won in that constituency/area. The position can optionally be a seat position rather than an initial vote position, e.g. “Seat 2” might represent the second seat elected during an AMS regional, STV, or Party List calculation. Up to four party position / election combinations can be specified, and the logic for each can optionally be reversed, e.g. to select seats where Labour is **not** first.

These position criteria can be combined using simple AND and OR logic, e.g. to display seats where Labour OR Conservatives are first AND the Liberal Democrats OR Greens are second. In addition, if “Use best match when boundaries change” is checked then an attempt will be made to find the closest matching constituency even when relevant boundary changes have occurred between the selected election and the current election.

Hint: When selecting the party name there may be a large number of parties in the drop-down combo box. For faster selection, simply click on the combo box and then start typing the party name, e.g. type “c” then “o” then “n” in quick succession, then use the enter key when the desired party is highlighted.

=> To filter by Boundary Change Amount

- From the main filter dialog, press the Boundary Change button.

The Filter by Boundary Change Criteria dialog will be displayed.

- **Boundary Change Criteria** - specifies whether to display all constituencies, constituencies which are unchanged, constituencies which have had their boundaries changed, or constituencies that have changed by the specified percentage.

Note: The boundary change percentage is calculated as follows:

$$100.0 - ((\text{TransferredVotes} / \text{TotalVotes}) * 100.0)$$

where:

TransferredVotes – the largest block of votes transferred from any old constituency to the new one

TotalVotes – calculated as (NewConTotal – TransferredVotes + OldConTotal)

NewConTotal – Total votes transferred to the new constituency (from all old constituencies)

OldConTotal – Total votes transferred from the old constituency associated with

TransferredVotes (to all new constituencies)

This calculation aims to take account of the level of continuity between the new constituency and the old constituency which is most closely associated with it. In effect the calculated figure represents the percentage of total electors in either the old constituency OR the new one (or both) that are NOT part of the new constituency. If there is no change then this figure will be 0.0. The maximum likely change percentage will be around 66.0, which could occur if a new constituency

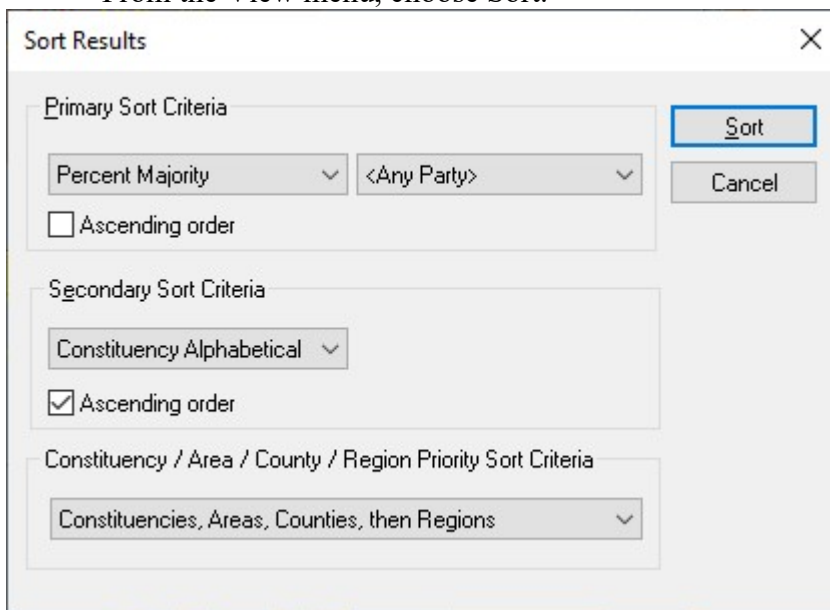
is made up of around half of each of two old constituencies (i.e. only around one third of the total electors who are in the new constituency, or were in the old constituency, were/are in both!) The reason for the slightly complicated nature of the calculation is to take account of situations such as those where an old constituency is 100% absorbed into a new one, along with other voters, AND situations such as those where part of an old constituency forms 100% of a new one.

4.4.1. *Sorting Constituencies*

Constituencies can be sorted by a wide range of different criteria. Note that, in addition to the method specified here, it is also possible to sort by clicking on any displayed column header – e.g. on the main 6-way summary window or on the detailed result view.

=> **To sort the contents of a window**

- From the View menu, choose Sort.



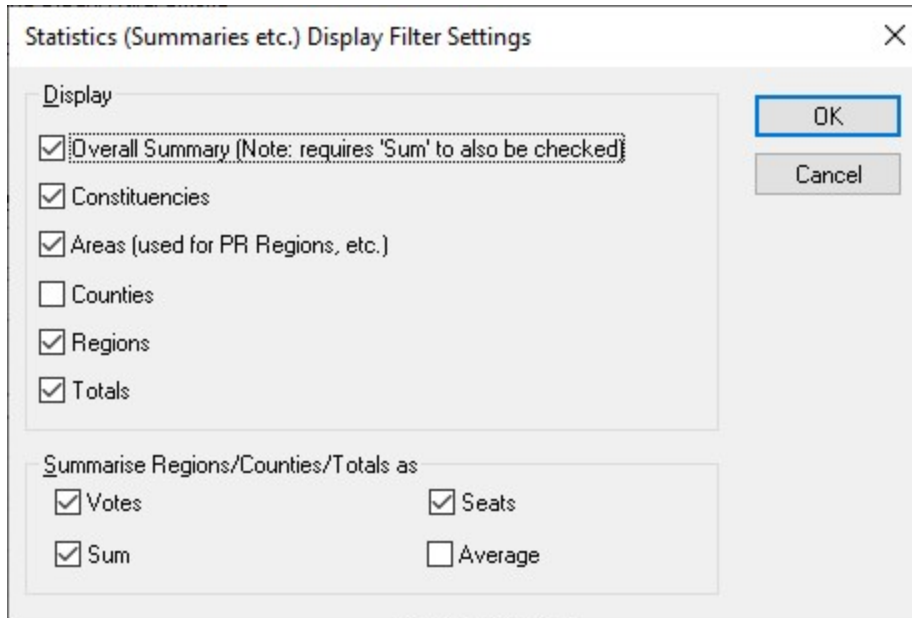
The Sort Settings dialog will be displayed.

- **Primary Sort Criteria** - specifies what the initial sort will be based on, e.g. alphabetically by constituency, or according to criteria such as majority, swing, votes, turnout, winnability (likelihood of winning) and best prospects for gains, in either ascending or descending order
- **Secondary Sort Criteria** - specifies the criteria for sorting the results of the primary sort in cases where the sort comparison was equal.
- **Constituency / Area / County / Region Priority Sort Criteria** - specifies whether to sort constituencies first, or regions first, or to only use the primary and secondary sort criteria.

4.5. *Choosing Whether to Display Constituency, Regional, and Area Summaries*

=> **To choose whether to display constituency, area and regional summary information**

- From the View menu, choose Statistics Display - the Statistical Display Settings dialog will be displayed:



- **Display** - specifies what should be displayed out of overall summary, constituencies, areas, counties, regions and totals.
- **Summarise Regions/Counties/Totals as** - specifies whether regions/counties and overall sums and/or averages should be displayed for votes and/or seats (if a council summary is loaded, then the choice is between seats and councils).

4.6. ***Controlling Colouring of Maps and Graphics***

=> **To control how constituencies and graphics are coloured**

- From the View menu, choose Maps / Graphics Colouring Criteria

Map / Graphics Colouring and Summary Box Configuration

Map / Graphics Colouring Criteria

Party Colours (Emphasising Gains vs Holds)

<Reform UK>

Use Normal Colour Contrast

For increases, decreases, changes, and swings, compare with:

☒ Previous Election ☐ May 2025 Metropolitan Districts

Map Markers ☒ Show Constituency Markers ☐ Show Summary Markers

Map Display Settings

Constituency to display where map differs from election or boundary changes affect calculations:

☐ None ☐ Very Good Match ☐ Good Match ☐ Fair Match ☐ Any Match ☒ Best Found

Colour Settings

☐ Map/Graphics Background Colour: Selected Constituency Colour:

☐ Keep Selection Highlighted:

Map Summary Box Settings

☒ Show Summary Info Boxes ☒ Show Summary Charts ☐ Use Summary Font:

☐ Summary Box Background Colour: ☐ Summary Box Text Colour:

☒ Use Colours for Party Names ☐ Apply Party Colours to Background (behind text)

Main Counts: Party Seat Totals:

Party Colour Display Settings

☐ User Configurable Colours ☐ Old "Standard" Colours ☐ Alternate Colours ☒ Wikipedia Colours

OK Cancel Preview ☐ Disable All

Available Map / Graphics colouring criteria options include:

- **Party Colours** – constituencies can be coloured according to various sets of standard party colours, including user defined colours and the colour scheme used by Wikipedia. Which option is used is defined by the Party Colour Display Settings (see below)
- **Party Colours (Emphasising Gains vs Holds)** – same as above, but using a deeper colour for gains compared to holds
- **Party Colours (Previous Result)** – same as for Party Colours, but applied to the previous election (e.g. it will show the colour of the party that was in the same position in the constituency result before the currently displayed / filtered election)

- **Party Colours (Previous Result – Emphasising Holds vs Losses)** – same as above, but using a deeper colour for seats that were subsequently held compared to those that were lost
- **Percentage Lead** – constituencies are coloured according to a mix of standard party colours and grey – the lower the percentage lead, the greyer (the effect is to dim the colours for a low percentage lead and brighten them for a bigger lead).
- **Absolute Percentage** - as with percentage lead, but total percentage is used
- **Relative Percentage** - as with percentage lead, but coloured according to the margin between the two specified parties (taking no account of other parties)
- **Percentage Increase** - as with percentage lead, but percentage increase is used
- **Percentage Decrease** - as with percentage lead, but percentage decrease is used.
- **Percentage Change** - as with percentage lead, but percentage change is used, with grey representing a large decrease and full party colour representing a large increase (i.e. neutral would be represented by halfway between grey and the party colour)
- **“Swing To” Percentage** - as with percentage increase, but the most “significant” swing to a party will be shown (this is not always the same as the biggest swing between any two parties, usually it is the swing between the first two parties, or between a previous winner and the new winner).
- **“Swing From” Percentage** - as with “Swing To” Percentage, but the most “significant” swing away from a party will be displayed.
- **“Relative Swing” Percentage** - the most “significant” swings between two parties will be compared, and the difference will be displayed.
- **Gaining Party Colours** – the party colours of parties which gain a seat compared to the specified previous election will be displayed. The result can optionally be filtered for a particular party.
- **Losing Party Colours** – the party colours of parties which lose a seat compared to the specified previous election will be displayed. The result can optionally be filtered for a particular party.
- **Mix Party Colours** – the party colours of the specified number of parties (e.g. the top 2) will be mixed, either using standard colours or proportionate to the party’s vote percent. This can be a very good way of showing “at a glance” the overall pattern of rivalries for a region or for the whole U.K.
- **Turnout** – coloured proportional to turnout, the lower the turnout, the more grey
- **Turnout Increase** – coloured proportional to turnout increase, the lower the turnout, the more grey
- **Turnout Decrease** – coloured proportional to turnout decrease, the lower the turnout, the more grey
- **Electorate** – coloured proportional to electorate, the lower the turnout, the more grey
- **Brexit Referendum Leave Vs Remain (Estimated)** – will colour constituencies according to known and estimated remain and leave percentages (e.g. showing as blue where strongly leave, and orange where strongly remain). The colours are shaded according to the size of the winning percentage.
- **Brexit Referendum Leave % (Estimated)** – coloured proportional to known / estimated Brexit leave vote percentage.
- **Brexit Referendum Remain % (Estimated)** – coloured proportional to known / estimated Brexit remain vote percentage.
- **Boundary Change % From Previous Election** – coloured proportional to boundary change percentage since previous election.
- **Boundary Change % To Next Election** – coloured proportional to boundary change percentage between this election and next.
- **Fixed Colour** – constituencies are always coloured using a party colour or one of the standard colours

For many options, a political party can be specified using the second (and sometimes the third) combo box. When this is set to “Any Party” then the current position will usually be used to determine which party colours are used.

The final colouring criteria combo-boxes can be used to brighten (or dim) the colouring, and to specify whether party colours should be used or shades of a specific colour, An example of use of the colour contrast combo is when displaying the absolute percentages for a minor party, which would tend to look very grey – in this case it can be set to “Increase Colour x10”.

An example of a case where it makes sense to use a specific colour for shading, rather than party colours, is when turnout is being displayed.

Increases, decreases, changes and swings are normally compared with the previous election, but can optionally be displayed compared to any user-selected election. This can be useful for comparing changes over a larger period. (Note that boundary changes can sometimes affect the comparison, so it is not always strictly like-for-like.)

The Map / Graphics colouring criteria can be disabled by using the “Disable” checkbox. If colouring of constituencies is disabled then the default map markers may be drawn instead, depending on the current map marker settings (see the Map Marker Settings discussion in the next section for more details). For convenience, a Map Markers button provides direct access to the Map Marker settings, and map marker display for constituencies and for overall summaries can be disabled by use of check boxes.

Map Display Settings are used where constituency boundaries have changed, and the map being displayed does not match the current election (i.e. the boundaries did not apply to that election), or the boundaries have changed in between a relevant previous election and the currently selected one. In this case the user can choose whether to not colour the constituency, or to colour it as if were the closest matching constituency, or to only colour it as if it were the closest matching constituency if that constituency is a good match (most of it remains the same). The closeness of the required match can also be controlled – whether a very good, good, or fair match is required, or whether any reasonable match will do (even if the boundary changes between the two constituencies are greater than 50%), or whether the best-found match should be displayed, irrespective of the differences between the two constituencies.

Colour Settings and Map Summary Settings can be used to configure the map background colour and the colour used for highlighting the currently selected constituency. The colours and font used in the summary charts and the summary box that appears on maps and graphics and which shows, for example, the number of seats won by each party, can also be set. The map and text background colours, and the text colours used in the summaries can optionally be specified. (If they are not specified then the map defaults will be used, normally light grey for the background and black for the text.) In addition, party colours can be used for the party names or, alternatively, for the background area behind each party name. Note that not all maps support use of the map background colour. (The background colour support is added to a map by configuring map hotspots for the Overall Summary. This will also enable popups showing overall summary information to appear when the cursor is hovered over these locations.)

Party Colour Display Settings can be used to override the user configurable colours used by UK-Elect, replacing them with “standard” colours, which are often used on maps by media organisations. The party colours recommended for use on Wikipedia are especially commonly seen.

4.7. Map Marker Symbol and Text Display

=>To control how map marker symbols are displayed

- From the View menu, choose Map Marker Symbol and Text Criteria. The Map Marker Symbol and Text Criteria dialog will be displayed.

Map Marker Symbol and Text Criteria

Map Marker Symbol and Text Criteria

Marker Symbol Type

- ☐ Always Off (never drawn)
- ☐ Default symbol type (but only drawn on maps that have no recolourable constituencies)
- ☐ Default symbol type (may vary depending on map or graphic page displayed)
- ☐ Filled Diamond (uses constituency colour criteria to fill)
- ☐ Summary Pie Chart (shows vote or seat summay as pie) ☐ Show electorate circle
- ☐ Gain / Loss indicator(s): ☐ Gains ☐ Losses ☒ Both
- ☒ Percentage Bars: Max places: Max previous elections:
☐ Show as change from previous election
- ☐ Constituency Text Only ☐ Name Only ☐ Name & Seats Only ☐ Selected Constituency Marker

Constituency Text Display (displayed under marker or in place of it)

- ☐ Constituency Name ☐ Number of Seats ☐ Number of Seats (if > 1)
- ☐ Winners Name ☐ Majority Info ☐ Gain/Hold Info ☐ Swing Info
- ☒ Text: 1:[#Party1], 2:[#Party2], 3:[#Party3], 4:[#Party4]
- ☒ Abbreviate party names

Marker Symbol Size and Visibility

Marker Symbol Size (Pixels): ☒ Scale by map size

- ☒ Compensate for zoom factor ☒ Scale by constituency total votes
- ☒ Hide when no data available ☐ Show for current constituency only
- ☒ Show Constituency Markers ☐ Show Summary Markers

Text Properties

- ☒ Transparent background ☐ Marker Text Font:

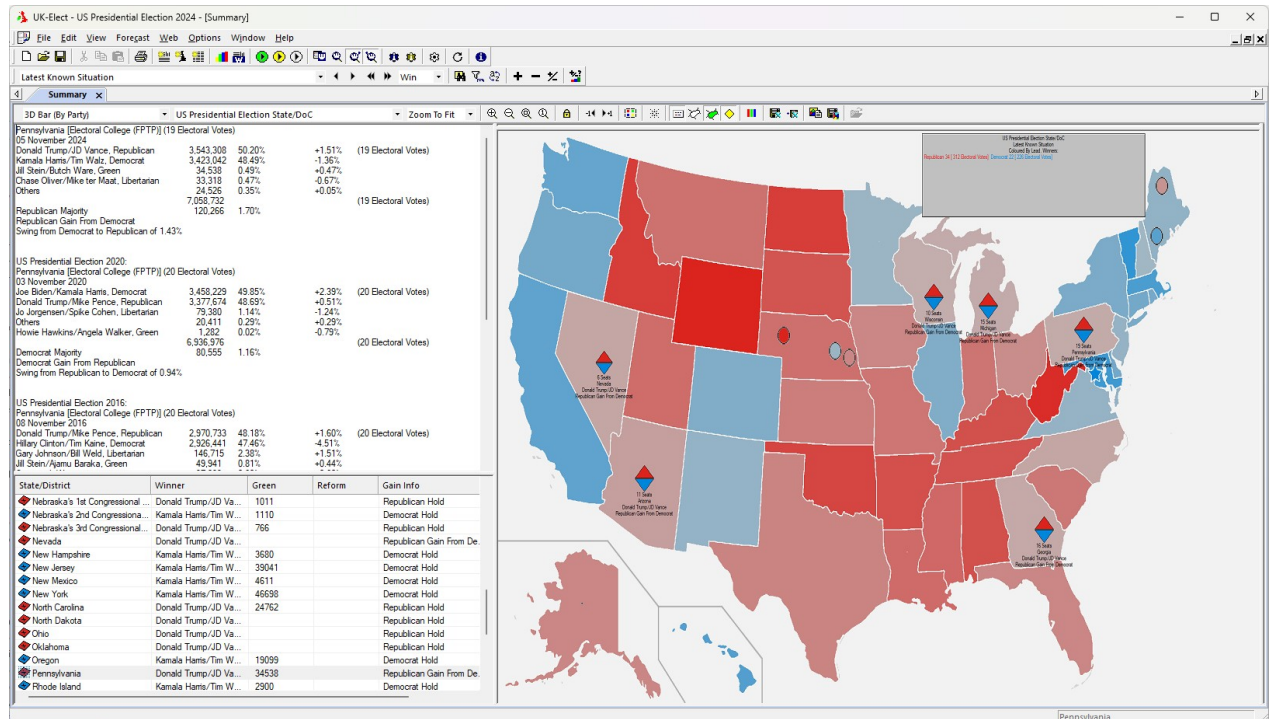
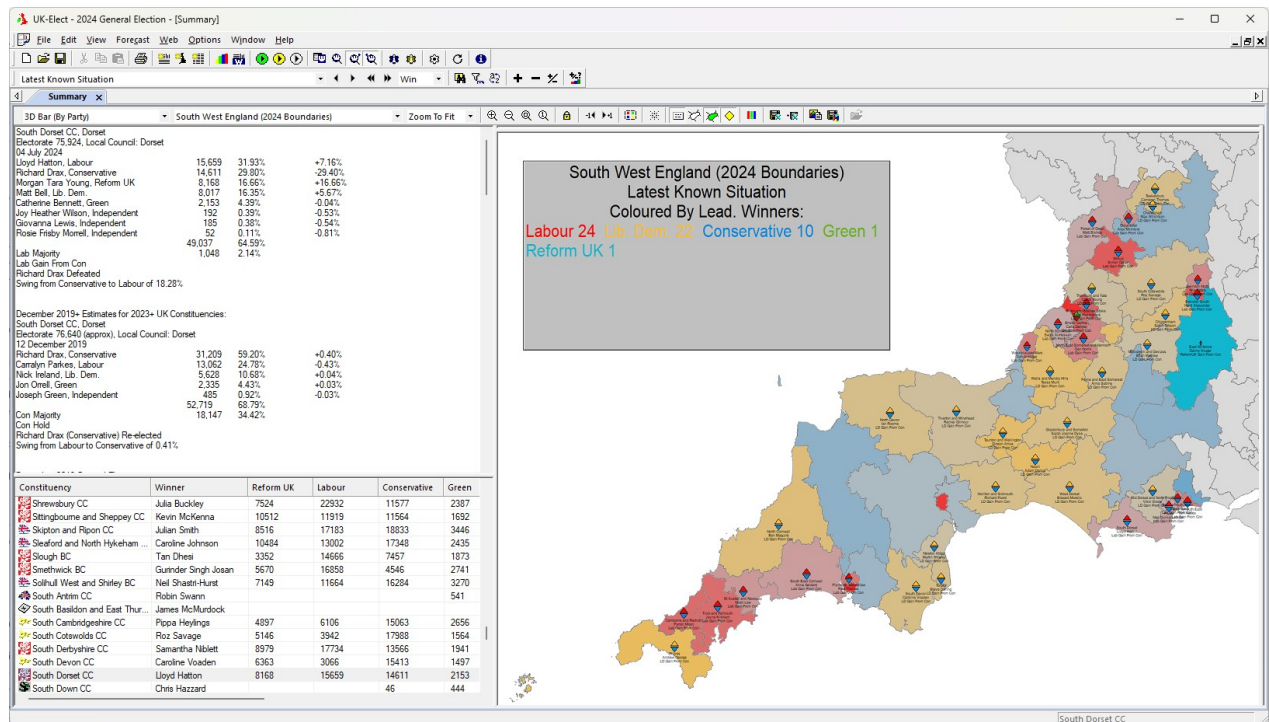
OK Cancel Preview

Available map marker symbol criteria options include:

- **Marker Symbol Visibility** – whether to force the symbols to be displayed, or stop them from being displayed, or leave to the default setting (which is to display them only when constituencies are not being recoloured, e.g. because the map is a place map rather than a constituency map). In addition, an option is provided to hide the symbols if no information is available for that constituency according to the currently displayed filter settings (i.e. it would be displayed in light grey).
- **Marker Symbol Type** – what symbol to draw, if symbols are displayed. Options include:
 - Default – this may vary depending on map displayed. Often it is a summary pie chart.

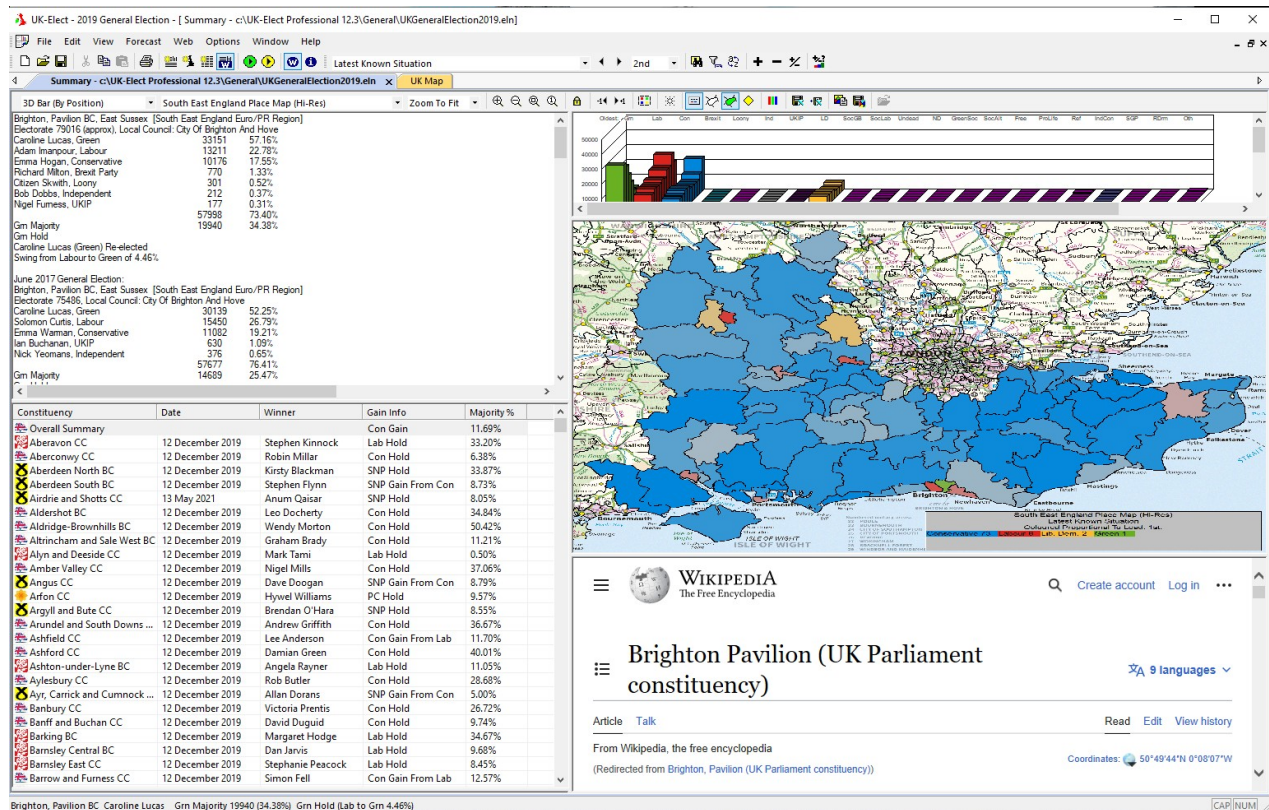
- Filled diamond – simple diamond shape filled with the same colour as the underlying constituency (useful when providing markers of constituency values on top of an ordinary place map)
- Summary pie chart – shows vote (or seat, where a summary election is being displayed) as a pie chart.
- Gain/Loss indicator – draws up or down triangles (or both) filled with the colour of the gaining and/or losing party.
- Percentage Bars - displays either absolute or relative (percentage change) vote (or seat) percentages as a small bar chart drawn on top of each constituency. The number of places drawn can be configured (e.g. if this was set to 2 then the top2 parties in each constituency would be displayed). The maximum number of previous elections displayed on the chart can also be displayed (normally 1, but can be set to a higher number so that absolute change percentages for the same parties for previous elections can also be displayed on the same graph).
- Constituency Text Only – constituency text will be displayed, using Constituency Text Display settings.
- Selected Constituency Marker – the marker used to indicate a constituency is selected will be displayed (always for the selected constituency only)
- Name Only / Name and Seats Only – these options allow simple display of just the constituency name, or the name and number of seats only. (Constituency Text Display settings are not used.)
- Default – this may vary depending on map displayed. Often it is a summary pie chart.
- **Constituency Text Display settings** - controls the text displayed underneath (or in place of) the marker symbols. This includes the constituency name, the number of seats (with the option to display only if this is greater than 1), the winners' name, majority information, gain/hold information, and swing information. The format in which the text for these fields is displayed is similar to that used for tooltips. The final option is just labelled **Text**. This can be used to enter user-defined text that can include embedded substitution fields. These are the same fields used for web address settings, e.g. [#Constit] for a constituency name and [#Region] for a region name. For full and up-to-date details of the available options see the file **SubstitutionFieldInfo.txt** which is found in the same folder in which ukelect.exe was installed (the main UK-Elect installation folder). This file can also be viewed by pressing the “Text Substitution Info” button on the above dialog. If the “Abbreviate Party Names” checkbox is set then any party names displayed using this marker text will be shown in their shorter abbreviated form.
- **Marker Symbol Size and Visibility** – options to control the size of the map symbol in pixels (at the native resolution of the map). This can be scaled by map size (meaning that the size will be increased for very large maps and reduced for small ones), and/or in proportion to the constituency votes size (so that a symbol for the Western Isles would appear smaller than one for the Isle of Wight, for example – note that this scaling is done by the actual number of votes cast). Compensation for zoom factor can also be applied (so that the symbol stays a similar size even as a map is zoomed in or out). Optionally a map marker can be displayed for only the current constituency – which is useful for showing where that constituency is on a map. The Show Overall Summary Marker controls visibility of the Overall Summary Marker (where the location of this is defined for a map).
- **Text Properties** – options to control whether text is drawn with a transparent background, and to allow the optional selection of a user-specified font to be used for the marker text.

Examples of map marker symbols:



4.8. The Summary Window

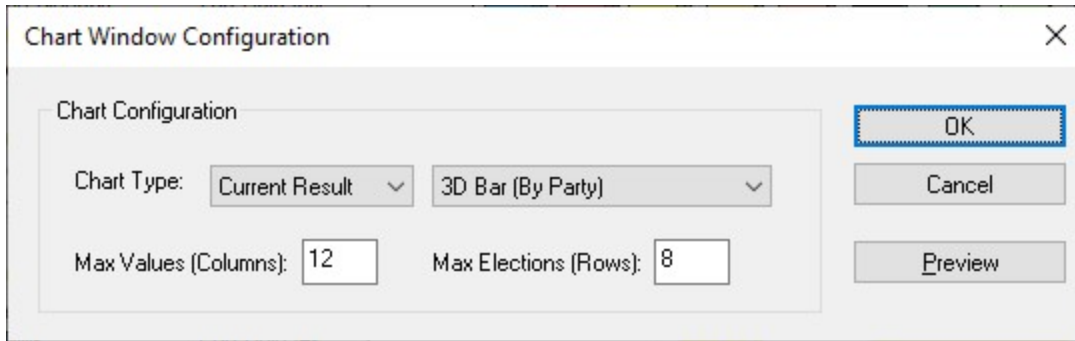
A Summary Window can be opened by clicking on the  icon. The Summary Window as shown below is itself subdivided into three to five display areas (two are optional).



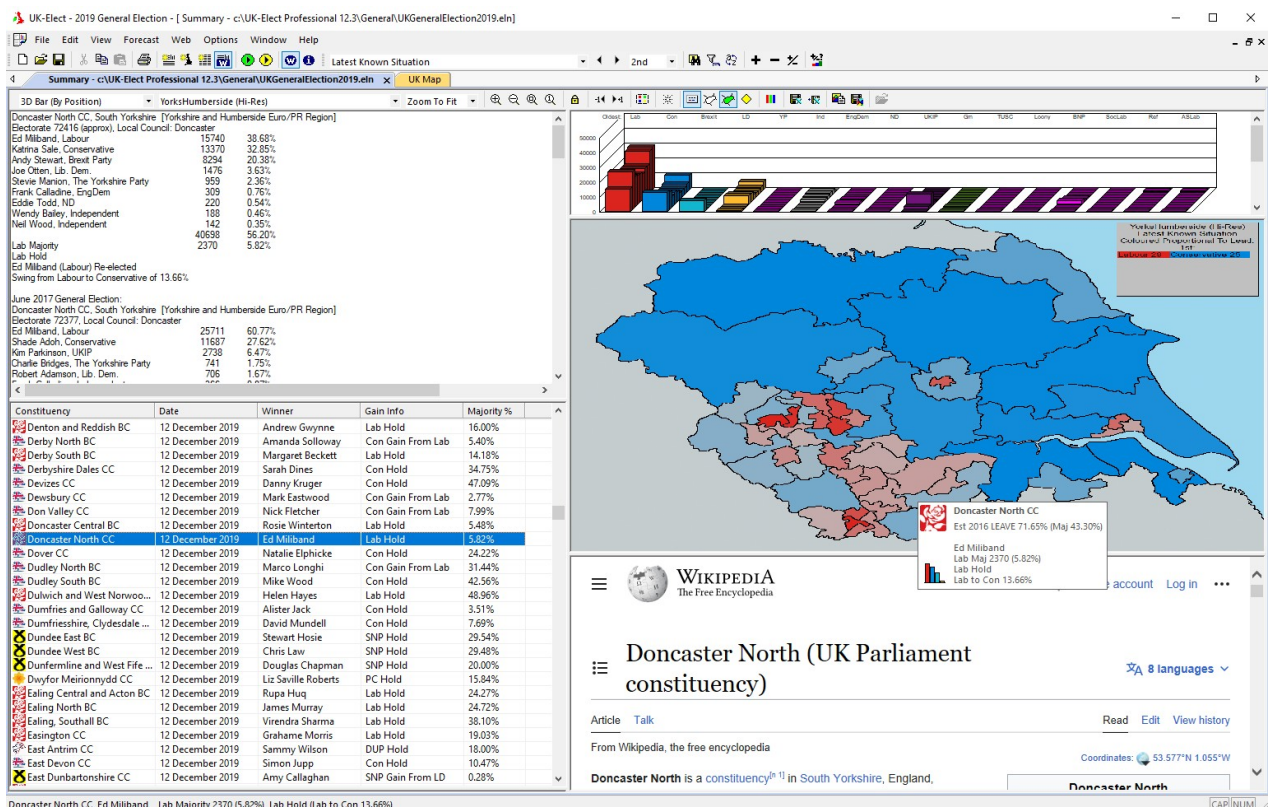
The Constituency area (top left) displays the results relating to the currently selected constituency in the Constituency Summary area.

The Detailed Constituency List View (below the constituency area) displays a detailed list of all constituencies. The data displayed in the columns in this list is highly configurable, via the “Choose Columns” option on the View menu, sortable by clicking on columns headers, and in addition the list can be displayed in other formats (e.g. as icons) if desired. The columns can also be re-ordered in the view by clicking on them and dragging them to a new location. Multiple lines can be highlighted at the same time and copied to the clipboard in CSV format (suitable for import into spreadsheets such as Excel etc.) or saved using options on the File Export submenu.

The Chart Window (top right, controlled by the  icon on the main toolbar) is optional and shows a pictorial representation of the overall vote or seat results, or the results for the currently selected constituency, using standard charts such as bar charts, 3D bar charts, pie charts, and trend graphs. Right-clicking on this window will cause a pop-up menu to appear which includes an option to configure the settings for this window, including the maximum rows and columns displayed, and whether the current results is displayed or an overall votes or seats summary.



The Map area displays a smaller version of the Map Window that presents a geographical representation of the area that includes the selected constituency. When the mouse cursor is over a constituency the constituency name will be displayed.



The Web Browser area (optional, controlled by the  icon on the main toolbar) displays a resizable web browser control which can be used to dynamically display constituency, election and candidate information – or, in fact, any information viewable on standard external websites. It can be set to be context-sensitive, automatically looking up and displaying information about the currently selected constituency from Wikipedia or a selection of other websites or the user's own preferred site. See the Web Browser configuration section for how to configure this functionality.

Note Selection of the right mouse button in the Summary Window will display a floating menu. The options on the menu will vary according to the area of the Summary Window.

Taken as a whole, the Summary window is highly configurable, with each individual sub-area also supporting many view and display options.

=> **To change the graphic display**

- From the graphic combo box, choose an alternative type of graphic.



graphic combo box

The pictorial representation of the results will update using the newly selected graphic.

=> **To change the map being displayed**

- From the map combo box, choose an alternative type of graphic.



map combo box

The map area will update to display the newly selected map.

=> **To prevent the window from being automatically updated**

- Click on the Lock Summary Constituency icon.



Lock Summary Constituency

-or-

From the View menu, choose Lock Constituency.

The Summary Window will not change as a result of a different constituency being selected in another window, for example the Map Window.

=> **To highlight the selected constituency when selected**

- Click on the Highlight Selected Constituency icon.



Highlight Selected Constituency

The currently selected constituency on the map will be highlighted. Note: this option can be deselected by clicking again on the icon.

=> **To show/hide the summary box**

- Click on the Show or hide map summary box icon.



Show or hide map summary box

The summary box will appear/disappear depending on the toggle state of the option.

=> **To blink constituencies where gains have occurred**

- Click on the Blink Gains icon.



Blink Gains

Any constituencies where power has changed hands will blink in the Map Window

=> **To select the criteria used to colour maps and graphics**

- Click on the Colouring Criteria icon.



Colouring Criteria

-or-

From the View menu, choose Maps / Graphics Colouring Criteria (see section 4.1).

=> **To change the font in the Summary Window**

- From the Options menu, choose Summary Result Font to change the Constituency Summary area font.
- From the Options menu, choose Summary List Font to change the Constituency area font.

The standard font selection dialog will be displayed.

=> **To copy a map to the clipboard**

- Click on the Copy Map icon.



Copy Map

-or-

From the Edit menu choose the Copy Map command.

-or-

From the Edit menu *when the map window is active* choose the Copy command.

=> **To save a map to an image file and start the associated program**

- Click on the Save Map and Start Associated Program icon.



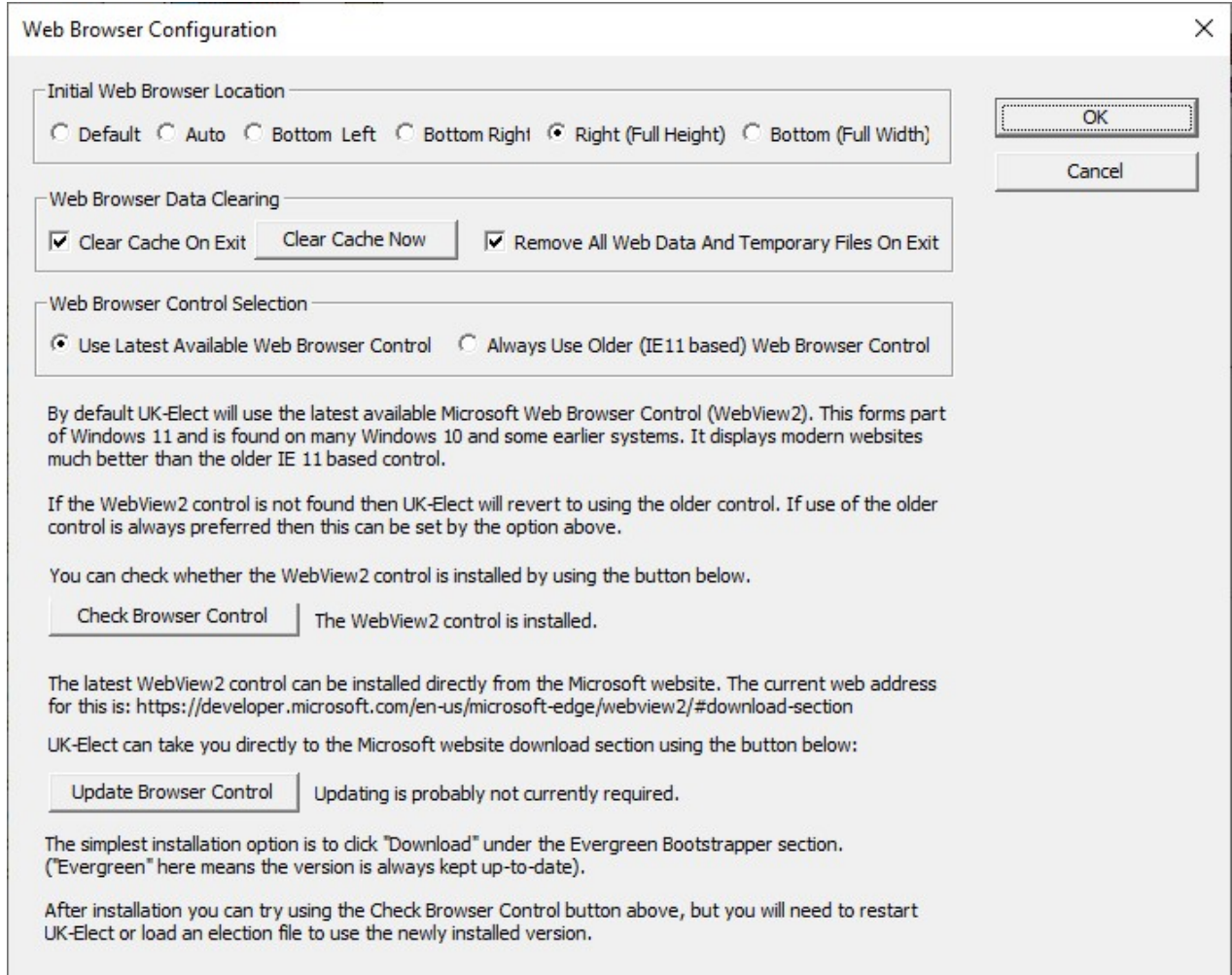
Save Map and Start Associated Program

-or-

From the File menu choose the Export submenu and the Save Map and Start Associated Program command. Note: the currently supported image file formats include .png, .jpg and .bmp. The Export submenu also includes the option to save the map without starting the associated program.

4.9. Configuring the Web Browser Control

The Web Browser Configuration Dialog is used for configuring the location and the technology used for the Web Browser control, and whether cached data is automatically deleted.



The dialog box is titled "Web Browser Configuration" and has a close button (X) in the top right corner. It contains three main sections:

- Initial Web Browser Location:** A group box containing six radio buttons: "Default", "Auto", "Bottom Left", "Bottom Right", "Right (Full Height)" (which is selected), and "Bottom (Full Width)".
- Web Browser Data Clearing:** A group box containing two checkboxes: "Clear Cache On Exit" (checked) and "Remove All Web Data And Temporary Files On Exit" (checked). There is a "Clear Cache Now" button between the checkboxes.
- Web Browser Control Selection:** A group box containing two radio buttons: "Use Latest Available Web Browser Control" (selected) and "Always Use Older (IE11 based) Web Browser Control".

Below these sections, there is explanatory text:

- A paragraph stating that by default UK-Elect will use the latest available Microsoft Web Browser Control (WebView2), which is part of Windows 11 and found on many Windows 10 and earlier systems. It notes that WebView2 displays modern websites much better than the older IE 11 based control.
- A paragraph stating that if the WebView2 control is not found, UK-Elect will revert to using the older control. It notes that if use of the older control is always preferred, this can be set by the option above.
- A paragraph stating that you can check whether the WebView2 control is installed by using the button below.

Below the text, there is a button labeled "Check Browser Control". To its right, the text "The WebView2 control is installed." is displayed.

Below this, there is another paragraph stating that the latest WebView2 control can be installed directly from the Microsoft website. The current web address for this is: <https://developer.microsoft.com/en-us/microsoft-edge/webview2/#download-section>. It also states that UK-Elect can take you directly to the Microsoft website download section using the button below.

Below this, there is a button labeled "Update Browser Control". To its right, the text "Updating is probably not currently required." is displayed.

Below this, there is a paragraph stating that the simplest installation option is to click "Download" under the Evergreen Bootstrapper section. ("Evergreen" here means the version is always kept up-to-date).

Below this, there is a paragraph stating that after installation you can try using the Check Browser Control button above, but you will need to restart UK-Elect or load an election file to use the newly installed version.

At the bottom right of the dialog box, there are two buttons: "OK" and "Cancel".

The web browser can be located either to the right of all the other windows, below the constituency list or map windows (bottom left or bottom right), or at the bottom of the main window. The default option is the initial default location after installation and may change between different versions. The automatic option will choose a location based on the height and width of the main UK-Elect window – it may vary if the UK-Elect window is resized and then closed and re-opened.

Web browser cache and data clearing can also be controlled – the cache is the browser webpages downloaded by the web browser to save time (and any download costs) when they are next accessed. The option to remove all web data and temporary files on exit will remove not only the downloaded webpages but all temporary files used by the web browser. This will leave a cleaner system, but may somewhat slow closing UK-Elect, and can lead to a slight delay after restarting when web data is first accessed, as the temporary files will need to be recreated.

Options are also provided to either use the latest Microsoft web browser technology (Microsoft Edge Chromium WebView2) if it is already installed on the computer, or to revert to using an older (Internet Explorer 11) based technology. Wherever possible use of WebView2 is recommended as many websites are now starting to use functionality that the older control struggles to display correctly.

Buttons are provided to check if WebView2 is installed, and to go to the Microsoft site to download it. (Note that although WebView2 forms part of Microsoft Edge it is separate from it, so downloading it will not change your main browser setup.)

4.10. Web Browser Address Configuration

Web Address Configuration

Web Page Settings For Currently Loaded Election File. (Note: If a setting is blank, or evaluates to blank, then the Election Settings below will be used)

Home Page:

Election Page:

Constituency Page:

Constituency List:

Constituency Alias File:

Test

OK

Cancel

Save All

Load Last Save All

Replace spaces with:

Election Settings:

Default

Load

Import Settings From File

Export Settings To File

☐ Remove Commas
 ☐ Report script errors

Election Settings 1 to 3

Election Settings 4 to 6

Election Settings 7 to 9

Election Settings 10 to 12

Election Settings 13 to 15

Election Settings 16 to 18

Election Settings 19 to 21

Election Settings 1 - Used For:

UK General Election

From:

To:

Home Page:

https://en.wikipedia.org/wiki/[#Year]_United_Kingdom_general_election

Constituency Alias File:

Test

Election Page:

https://en.wikipedia.org/wiki/[#Year]_United_Kingdom_general_election

Constituency Page:

https://en.wikipedia.org/wiki/[#Constit]_[UK_Parliament_constituency]

Constituency List:

https://en.wikipedia.org/wiki/Constituencies_of_the_Parliament_of_the_United_Kingdom#Parliamentary_constituencies_in_the_United_Kingdom

Replace spaces with:

Replace & with:

☐ Remove Commas

Election Settings 2 - Used For:

Scottish Parliament

From:

To:

Home Page:

https://en.wikipedia.org/wiki/Scottish_Parliament

Constituency Alias File:

Test

Election Page:

https://en.wikipedia.org/wiki/[#Year]_Scottish_Parliament_election

Constituency Page:

en.wikipedia.org/wiki/[#Constit]_[Scottish_Parliament_constituency] [HOR] en.wikipedia.org/wiki/[#Constit]_[Scottish_Parliament_electoral_region]

Constituency List:

https://en.wikipedia.org/wiki/[#Year]_Scottish_Parliament_election

Replace spaces with:

-

Replace & with:

☐ Remove Commas

Election Settings 3 - Used For:

Welsh Parliament

From:

To:

Home Page:

https://en.wikipedia.org/wiki/Senedd

Constituency Alias File:

Test

Election Page:

https://en.wikipedia.org/wiki/[#Year]_Senedd_election

Constituency Page:

https://en.wikipedia.org/wiki/[#Constit]_[Senedd_constituency] [HOR] https://en.wikipedia.org/wiki/[#Constit]_[Senedd_electoral_region]

Constituency List:

https://en.wikipedia.org/wiki/[#Year]_Senedd_election

Replace spaces with:

-

Replace & with:

☐ Remove Commas

Default Election Settings (used if none of above apply or the relevant setting is blank)

Home Page:

www.google.co.uk/search?q=[#Election]+Wikipedia

Constituency Alias File:

Test

Election Page:

www.google.co.uk/search?q=[#Election]+Wikipedia

Constituency Page:

www.google.co.uk/search?q=[#Election]+[#Constit]+[#WInner]+Wikipedia

Constituency List:

www.google.co.uk/search?q=[#Election]+Constituencies+Wikipedia

Replace spaces with:

+

Replace & with:

and

☐ Remove Commas

[#Year], [#Y], [#Month], [#Day], [#Election], [#ElectionId], [#Constit], [#WInner], [#Region], [#County], [#Area], [#Id2], [#Id3] and [#CRT] will be replaced by the actual values. e.g. [#Year] by 2024

For the above, use appropriate case, e.g. [#Id2], [#Id2] or [#Id2] to convert to upper, lower or leave the case unchanged - e.g. DERBY, derby or Derby. [HOR] can be used for optional text - see:

Info

UK-Elect

Page 45

The Web Browser Address Configuration Dialog is used to configure the text sent to the web browser whenever a new constituency is selected. Default settings are provided for connecting to some of the most common and useful websites such as Wikipedia and the BBC. Separate settings can be configured for any election category (e.g. General Elections, Scottish Parliament, Welsh Parliament, Northern Ireland Assembly, London Assembly, U.S. Presidential Election etc.) and for any election year range for those categories. It is also possible to create text specific to the currently loaded election file that will only be used with it – this information will be stored in the election .eln file itself. These web address link definitions can be exported/imported to and from text files.

The text used when looking up individual constituencies or elections (the text used when an overall summary is being displayed) can also be configured separately. Special placeholder values provided include: [#Year] which will be replaced by the year of the election currently being displayed, [#YY] by the last two digits of the year, [#Month] by the month, [#Day] by the day, [#Election] by the election name, [#ElectionId] by the election ID, [#Constit] by the constituency name, [#Winner] by the winner's name, [#Id2] by the constituency ID2 field (typically used to hold the ONS/GSS/ANSI/ISO code for the constituency), and [#Id3] by the constituency ID3 field (typically used for a web address or alternative name for the constituency although both ID2 and ID3 can be any text). [#CRType] is a special value that translates into either “c” (for constituencies), “r” (for regions) or “a” (for additional seats). The text case of the special placeholder values affects the text case of the resulting text – e.g. [#CONSTIT] will produce an upper-case result, [#constit] will produce a lower-case result, and [#Constit] will leave the default case (usually mixed case) unchanged. When processing a constituency name any text within the name itself that is inside square brackets will be ignored. The use of these configuration options can be demonstrated by choosing the Wikipedia default settings and then observing the text created on the dialog, and that sent to the website.

For a full list of the available text options, see the file **SubstitutionFieldInfo.txt** which is in the same folder as ukelect.exe (the main UK-Elect installation folder). The file can also be accessed by pressing the “Info” button at the bottom right of the above dialog. Note that these substitution fields can also be used in other places within UK-Elect, notably for the text which can be displayed underneath, or in place of, map marker symbols.

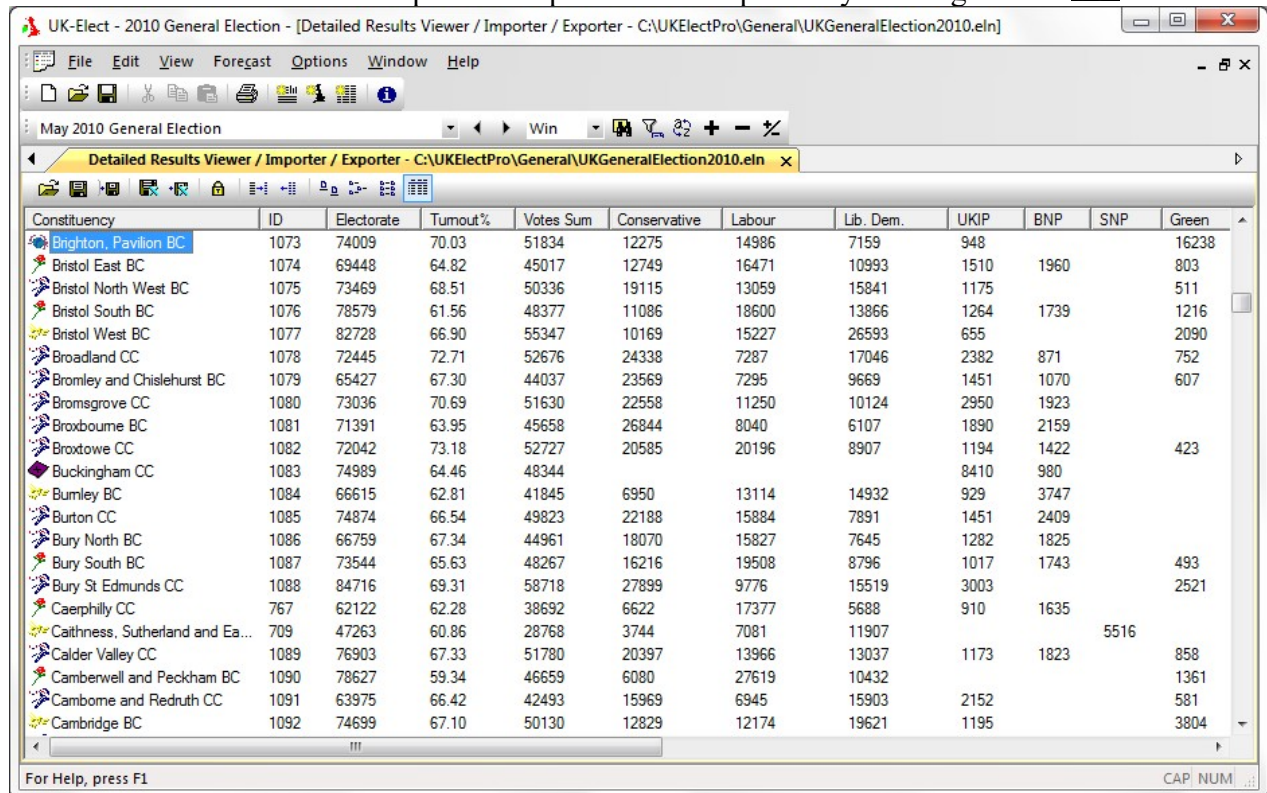
Additional simple options for processing web addresses include options to remove commas, and to replace spaces and ampersands with other text (or remove them completely) – e.g. spaces in constituency names can be replaced by underscores or hyphens or removed entirely, and ampersands can be replaced by the word “and”.

For constituency pages the option also exists to specify different address settings for constituencies and non-constituencies (e.g. AMS regions, as used in the Scottish and Welsh Parliaments). This is done by using [#OR] between the two configurations (with optional spaces either side of the symbol). Alternatively, the double pipe character || can be used as a separator although this requires a space either side. The constituency address is specified first - see the Wikipedia Scottish Parliament and London Assembly web address configuration for examples of how to use this functionality.

Constituency alias files can optionally be used to provide a mapping between the names for constituencies used by UK-Elect (which are usually the same as the Boundary Commission names) and those used by an online website. Typically, the differences are small (often the order of words, or the use or non-use of commas) but these can affect the ability to look up constituencies both in UK-Elect and in online websites. The alias CSV files are a very simple format consisting of one column header line (which is treated as a comment and ignored) followed by multiple lines each of which has two fields separated by a comma. The first of these is the UK-Elect name (often the Boundary Commission name) for a constituency, followed by the exact format of the name used by the website. It is a standard Comma-Separated Values file, so, for example, if any of the names contain commas then the whole name needs to be enclosed in quotes. The files need to be present in the same folders as the election (.eln) files. Only the constituency names which differ need to be specified, as names which are identical will be ignored when reading in the file.

4.11. The Detailed Results Viewer / Importer / Exporter Window

A Detailed Results Viewer / Importer / Exporter can be opened by clicking on the  icon.



Constituency	ID	Electorate	Turnout%	Votes Sum	Conservative	Labour	Lib. Dem.	UKIP	BNP	SNP	Green
Brighton, Pavilion BC	1073	74009	70.03	51834	12275	14986	7159	948			16238
Bristol East BC	1074	69448	64.82	45017	12749	16471	10993	1510	1960		803
Bristol North West BC	1075	73469	68.51	50336	19115	13059	15841	1175			511
Bristol South BC	1076	78579	61.56	48377	11086	18600	13866	1264	1739		1216
Bristol West BC	1077	82728	66.90	55347	10169	15227	26593	655			2090
Broadland CC	1078	72445	72.71	52676	24338	7287	17046	2382	871		752
Bromley and Chislehurst BC	1079	65427	67.30	44037	23569	7295	9669	1451	1070		607
Bromsgrove CC	1080	73036	70.69	51630	22558	11250	10124	2950	1923		
Broxbourne BC	1081	71391	63.95	45658	26844	8040	6107	1890	2159		
Broxtowe CC	1082	72042	73.18	52727	20585	20196	8907	1194	1422		423
Buckingham CC	1083	74989	64.46	48344				8410	980		
Burnley BC	1084	66615	62.81	41845	6950	13114	14932	929	3747		
Burton CC	1085	74874	66.54	49823	22188	15884	7891	1451	2409		
Bury North BC	1086	66759	67.34	44961	18070	15827	7645	1282	1825		
Bury South BC	1087	73544	65.63	48267	16216	19508	8796	1017	1743		493
Bury St Edmunds CC	1088	84716	69.31	58718	27899	9776	15519	3003			2521
Caerphilly CC	767	62122	62.28	38692	6622	17377	5688	910	1635		
Caitness, Sutherland and Ea...	709	47263	60.86	28768	3744	7081	11907			5516	
Calder Valley CC	1089	76903	67.33	51780	20397	13966	13037	1173	1823		858
Camden and Peckham BC	1090	78627	59.34	46659	6080	27619	10432				1361
Camborne and Redruth CC	1091	63975	66.42	42493	15969	6945	15903	2152			581
Cambridge BC	1092	74699	67.10	50130	12829	12174	19621	1195			3804

The window displays a complete list of data associated with the currently selected election (e.g. results and/or constituency information), sorted according to the current sort order. Alternatively, clicking on a column will sort by the order in that column. Click on the column again to toggle between ascending and descending order. Icons at the left of each item show the emblem of the party corresponding to the currently selected result position.

Note: selection of the right mouse button in the Detailed Results Window will display a floating menu.

=> **To import data (e.g. results) from a comma-separated values (csv) text file**

- Click on the Import Results icon.

Import Results is the leftmost icon on the Detailed Results Window toolbar

A dialog requesting the import file will be displayed (note: if you are viewing certain election files, e.g. an election forecast, then you may first be asked for confirmation that you wish to import new election results). After a file has been selected then the Import Settings dialog will be displayed. This allows you to configure how you wish the data to be imported. All imported data should be one constituency per line, and with party totals in a separate (comma-separated) column for each party. The first line always represents column titles, not data values.

Import Settings

Recognise Constituency By

- ☐ Line number (use as ID)
- ☒ Constituency name
- ☐ Constituency ID
- ☐ Constituency ID2 (e.g. ONS/GSS/ANSI or ISO code)

Constituency Overwrite Settings

- ☐ Import all, clear and then overwrite existing constituencies
- ☐ Import all, add into existing constituencies
- ☐ Import all, leave existing constituencies unchanged
- ☐ Import all, delete all existing constituencies before import
- ☐ Only import filtered constituencies
- ☐ Only import highlighted constituencies
- ☒ Import all, don't clear existing constituencies, but overwrite party votes and candidate names

Party Column Vote/Name Import Settings

☒ Use Imported Party Names (from column headers)

Number of additional party columns when importing:

Field Separators

☒ Comma ☐ Semi-colon ☒ Tab

☐ Automatically Calculate Total for "Others"

☐ Enable Column Title Consistency Checks

☒ Match Constituency Names in Reverse Order (i.e. Revised before Original)

OK Cancel

The "Recognise Constituency By" section allows you to specify whether UK-Elect should try and identify each imported constituency by the Line Number (i.e. the first line will be

assumed to be constituency ID 1, and could overwrite the first constituency in the election file); by the constituency name (please note that for imported constituency names to be correctly recognised they should be consistent with those already defined in UK-Elect otherwise new constituencies differing slightly in name may be created); or by Constituency ID or Constituency ID2. (Constituency ID2 can be any text identifier but is commonly a statistical or geographical code such as an ONS, GSS, ANSI or ISO identifier). Constituency name matching can optionally be set to match in reverse order – which will recognize newer (boundary changed) versions of constituencies in preference to the older (original) versions where both exist.

UK-Elect can be configured to import all the data from the file, clearing and overwriting any constituencies of the same name or ID (and adding those that don't already exist); to import all data adding into existing constituencies (this option is usually only used when adding in extra candidate names for a forthcoming election); to import all, leaving existing constituencies unchanged; to import all, after deleting all existing constituencies; to only import those constituencies which match the current filter settings; to only import those constituencies which are currently highlighted in the Detailed Results Viewer / Importer / Exporter window; and to import all adding in any new constituencies, and any new parties in existing constituencies, but simply overwriting any votes found in existing constituencies for existing parties. This last option could be used to, for example, change only Labour and Conservative votes without affecting the values for other parties or the other already configured information for that seat.

UK-Elect can also be set to use the imported party names (from the first line of the imported file), and to import more parties than can actually be displayed in the Detailed Results Viewer / Importer / Exporter window. To do this, simply type the additional number into the "Number of additional party columns when importing" box.

The import field separators can also be configured. Normally they are set to at least commas, but when importing data that has been produced by non-English software it may be necessary to set the semi-colon tick-box and uncheck the comma. This is because many countries use commas as a decimal place separator, and their “comma-separated” files are semi-colon separated.

=> To output the contents of the window to a text or comma-separated file

- Click on the Output / Export all results icon.



Output all results

A dialog requesting the output file will be displayed. The type can be set to text (*.txt) or comma-separated (*.csv). The contents of the Detailed Results Window will be sent to the designated file.

There is also an “Output all results and invoke associated program” option, which differs only in that the program associated with the specified file extension (e.g. Microsoft Excel for .csv files) will be automatically invoked and passed the file name after the data is written.

Note: Comma-separated files can be written or read by most database and spreadsheet programs (e.g. Microsoft Excel).

=> To output the selected items of the window to a text or comma-separated file

- Highlight the items you want to output.
- Click on the Output selected results icon.



Output selected results

-or-

From the View menu, choose Output Results.

A dialog requesting the output file will be displayed. . The type can be set to text (*.txt) or comma-separated (*.csv). The selected items in the Detailed Results Window will be sent to the designated file.

There is also an “Output selected results and invoke associated program” option, which differs only in that the program associated with the specified file extension (e.g. Microsoft Excel for .csv files) will be automatically invoked and passed the file name after the data is written.

=> To prevent the window from being automatically updated

- Click on the Prevent automatic update of results window icon.



Prevent automatic update of results window

-or-

From the View menu, choose Lock Results.

The Detailed Results Window will not change as a result of a different constituency being selected in another window, for example the Map Window.

=> To format the Detailed Results Window

- Click on the Detailed Result Settings icon.



Detailed Result Settings

-or-

From the Options menu, choose Detailed Result Default Settings.

The Detailed Results Viewer Settings dialog will be displayed:

Results List Settings

Default Setting Buttons: Simple Detailed Results In Order Main Parties All Parties Candidate Import Multiline Results Import

Columns:

- ☐ Position ☐ ID ☐ ID2 (e.g. ONS/GSS/ANSI/ISO) ☐ ID3 (e.g. URL) ☐ Election Name ☐ Election ID
- ☐ Type ☐ Region ☐ County ☐ Council ☐ Districts & Wards ☐ Area
- ☐ Boundary Changes Info (UK) ☐ Tags ☒ Date ☐ Total Seats ☐ Electorate
- ☐ Turnout % ☐ Total Votes ☐ Invalid Votes ☒ Winner ☐ 1st Party
- ☐ Votes (in vote order): All ☐ Multiple Columns, Max: 2

Party Results Displayed In Separate Columns:

☐ 1. <Reform UK>	☐ 2. <Labour>
☐ 3. <Conservative>	☐ 4. <Lib. Dem.>
☐ 5. <Green>	☐ 6. <SNP>
☐ 7. Independent	☐ 8. <Plaid Cymru>
☐ 9. <None >	☐ 10. <None >
☐ 11. <None >	☐ 12. <None >
☐ 13. <None >	☐ 14. <None >
☐ 15. <None >	☐ 16. <None >

☐ Other Parties (total votes grouped as "Others")

For parties in separate columns show: ☐ Candidates ☐ Vote ☐ Vote % ☐ Vote Change ☐ Vote Change %

☒ Gain/hold info ☐ Gaining Party ☐ Losing Party ☐ Majority (votes) ☒ Majority (percent) ☐ Prev Winner

☐ Prev Win Party ☐ Incumbency Info ☐ Swing Info ☐ Swing % ☐ Seats ☐ Num. Places ☒ Comment

☐ Sum Same Party Votes Show unknown numbers as:

Title (only displayed in separate result view): Detailed Results

Notes: when viewing the results sort a column in the view by clicking on the header. To re-order a column in the view click on header and drag it.

- **Title** - allows the title of the window to be specified.
- **Columns** - specifies which items will be displayed in the window. Options include position (line number), ID number (standard constituency ID), ID2 (typically an ONS/GSS, ANSI or ISO code), ID3 (typically a web address or alternative name for a constituency, although both ID2 and ID3 can be any text), type i.e. County Constituency (CC) or Borough/Burgh Constituency (BC), region, county, districts/wards, Brexit information (estimated 2016 referendum leave vote percentage), area, electorate, turnout, total votes, invalid votes, tags (user-defined, can be used for filtering constituencies), winner (name of winning candidate), 1st party name, votes in vote order (e.g. show top 3 for each constituency, either in one column or using separate columns), votes in party order (e.g. one party per column – useful for exporting to spreadsheets or databases, and also allow quick sorting of votes for a party by clicking on relevant column), gain information (whether a gain or hold), gaining party, losing party, majority, previous winner, previous winning party, incumbency information (whether the incumbent stood down etc.) swing, seats (number of seats won, useful for summaries and multi-member constituencies), and individual result comments. Votes

for the parties can be displayed in columns as absolute votes and/or percentages and/or the change in votes and/or the change in vote percentages. Votes for 'other' parties can be displayed separately.

- **Other options** –miscellaneous functionality, such as display vote percentages, show the number of seats, show the number of places (typically number of candidates or parties), show the candidate names, how to display unknown numbers, and whether to sum votes for the same party in multi-member seats.

=> **To change the font in the Detailed Results Window**

- From the Options menu, choose the Font option on the Detailed Results submenu.

The standard font selection dialog will be displayed.

=> **To change how items are listed in the Detailed Results Window**

- Click on one of the view type icons.



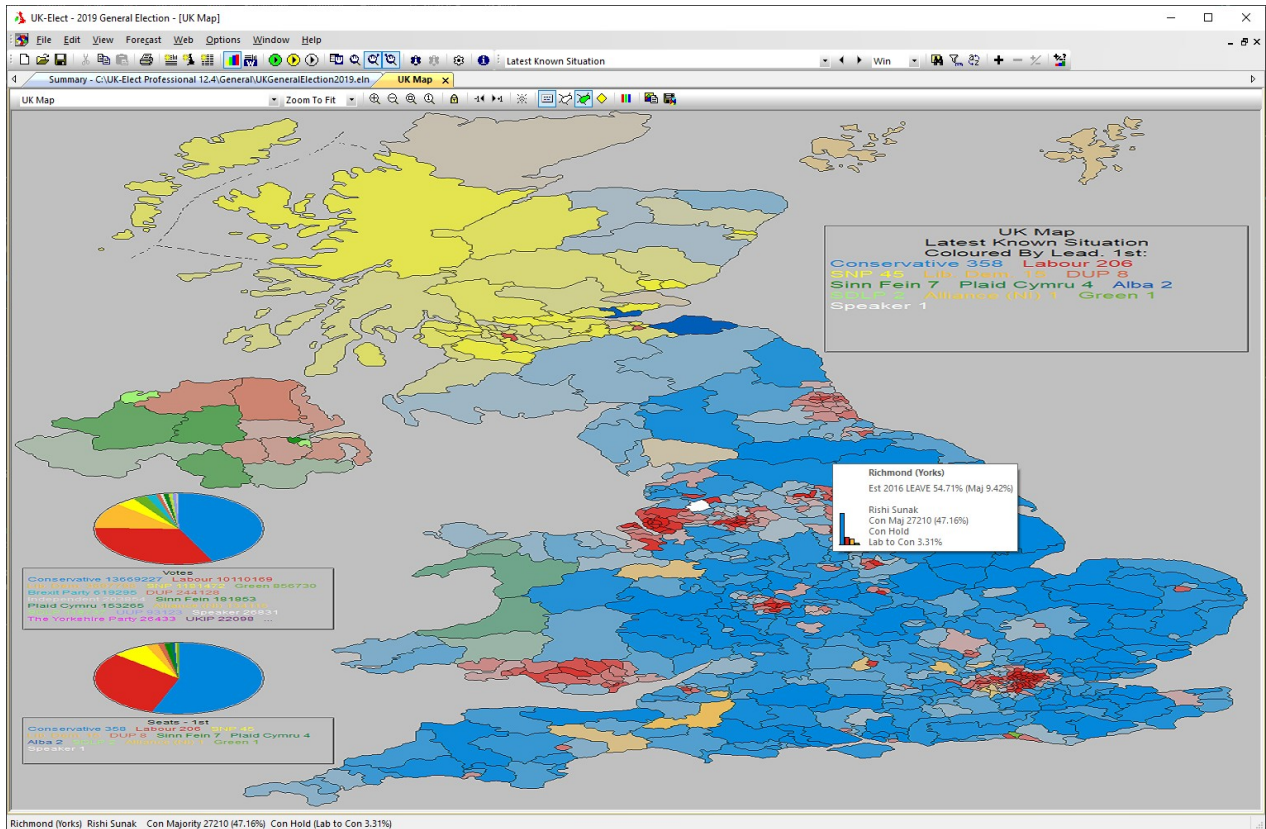
Large icons/Small icons/List/Details

These icons operate in the same way as in Windows Explorer.

4.12. The Map Window

A Map Window can be opened by clicking on the  icon.

The Map Window can be used to display one of a large selection of maps representing various areas of the United Kingdom. It can also be used to display other types of election information such as Labour election targets. Constituencies and graphics can be coloured according to user-selected criteria such as percentage lead (see section 4.1).



Note: Selection of the right mouse button in the Map Window will display a floating menu.

=> To change the map being displayed

- From the map combo box, choose an alternative map to display.

England and Wales

map combo box

The Map Window will update to show the new map.

Note: the map will change automatically if a constituency is changed in another Window and the Map Window is not locked.

=> To zoom the map display

- From the Zoom combo box, choose an alternative zoom factor.

The map will be enlarged/reduced dependent upon the selected zoom factor. The “zoom to fit” option will allow the map to be rescaled by dragging the window border with the mouse.

=> To prevent the window from being automatically updated

- Click on the stop automatic update of map icon.



Stop automatic update of map

The Map Window will not change as a result of a different constituency being selected in another window, for example the Detailed Results Window.

=> To show/hide the summary box

- Click on the Summary Box icon.



Show or hide summary box

-or-

From the View menu, choose Show Summary Info. The summary box will appear/disappear depending on the toggle state of the option.

=> To highlight the selected constituency when selected

- Click on the Highlight Constituency icon.



Highlight Constituency

-or-

From the View menu, choose Highlight Selected Constituency.

The currently selected constituency on the map will be highlighted. Note: this option can be deselected by clicking again on the icon.

=> To display the original map without the constituencies coloured

- Click on the Colour Constituencies icon (the one with the constituency coloured green) .



Colour Constituencies

-or-

From the View menu, choose Colour Map Constituencies.

The original map will be displayed - the constituencies will not be recoloured according to the currently selected election, position, etc.

=> To display the previous election results

- Click on the Display Previous Results On Map icon.



Display Previous Results On Map

-or-

From the View menu, choose Display Previous Results.

The Map window will be updated to show the results for the previous election.

=> To display the next election results

- Click on the Display Next Results On Map icon.



Display Next Results On Map

-or-

From the View menu, choose Display Next Results.

The Map window will be updated to show the results for the next election.

=> **To blink constituencies where gains have occurred**

- Click on the Blink Gains icon.



Blink Gains

-or-

From the View menu, choose Blink Gains.

Any constituencies where power has changed hands will blink in the Map Window.

=> **To select the criteria used to colour maps and graphics**

- Click on the Colouring Criteria icon.



Colouring Criteria

-or-

From the View menu, choose Maps / Graphics Colouring Criteria. A dialog will appear allowing selection of options such as colouring constituencies according to absolute party vote percentages. See section 4.1 for a discussion of this option.

To load an associated election file

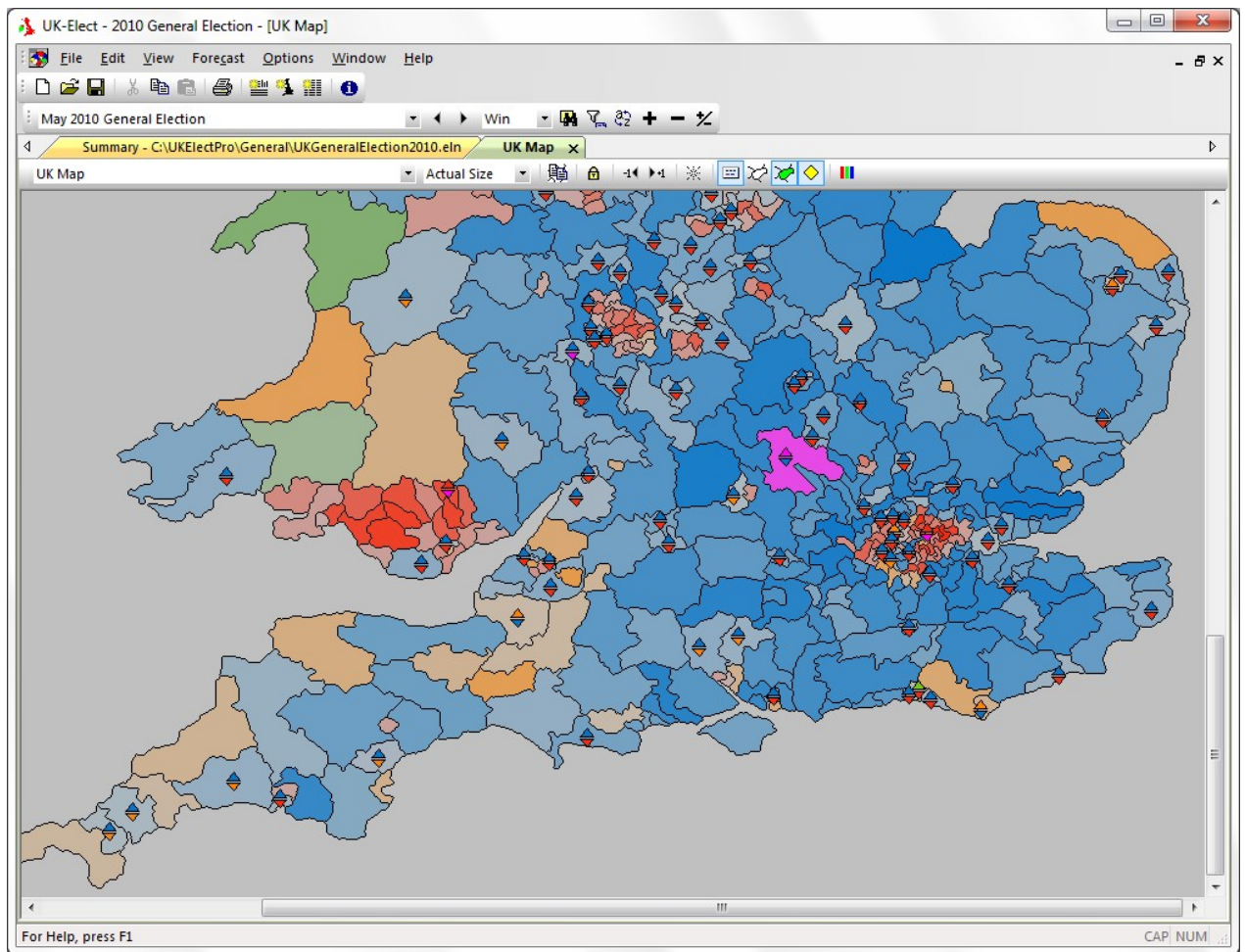
- Click on the Load Associated Election icon.



Load Associated Election

To configure map marker symbols (gain/loss and vote change indicators etc.)

The Map Marker Symbol Criteria dialog is accessed by pressing the Marker Symbol button on the toolbar (a diamond symbol) or choosing the relevant option from the view menu. Basically, this option allows markers to be superimposed on constituencies displaying information such as which party gained the seat, which lost it, changes in party vote percentages, or a pie chart vote summary etc. See section 4.2 for a discussion of this topic.



⇒ **To copy a map to the clipboard**

- Click on the Copy Map icon.



Copy Map

-or-

From the Edit menu choose the Copy Map command.

-or-

From the Edit menu *when the map window is active* choose the Copy command.

⇒ **To save a map to an image file and start the associated program**

- Click on the Save Map and Start Associated Program icon.



Save Map and Start Associated Program

-or-

From the File menu choose the Export submenu and the Save Map and Start Associated Program command. Note: the currently supported image file formats include .png, .jpg and .bmp. The Export submenu also includes the option to save the map without starting the associated program.

4.13. Comparing Different Elections, Forecasts etc.

The “User-Defined Comparison Elections” functionality (accessed from the view menu or main toolbar) can be used to compare any two sets of election results (whether actual or estimated notional results), highlighting the differences and changes between the results.

Configure User Defined Comparison Elections

Comparison Election 1

Name: 0 Results

Compare With: (Set as Previous)

Copy Results From: + -

*

Comparison Election 2

Name: 0 Results

Compare With: (Set as Previous)

Copy Results From: + -

*

Default/Backup/Example Comparison Election

Name: 0 Results

Compare With: (Set as Previous)

Copy Results From:

☐ Filter copying

Note 1: The Import and Export buttons can be used to import or export result or estimate data from or to other UK-Elect files. If the file extension specified is '.est' then an estimates file will be assumed.

Note 2: The main import/export facilities can also be used to import/export election data as csv files (for Excel etc.). To use these facilities display the desired user configuration election, exit this dialog, and choose import/export from the file menu.

Note 3: The '+', '-' and '*' can be used to perform addition, subtraction and multiplication operations on the election data, e.g. subtracting one election from another, or multiplying all the results in an election by a set amount.

Note 4: Changes made via the buttons on this dialog will take immediate effect (after user confirmation)

Any set of results or forecasts (including by-election results and constituency opinion polls) can be copied into any of the three sets of user comparison election results and stored there for future use. (This can be handy when, for example, comparing different forecasts.) The copying can be filtered, to, for example, only copy results from a particular region, or those that match any other criteria (e.g. Conservative seats). Further sets of data can then be copied into the election (e.g. the results from a different region). It is also possible to manipulate the data in the user-defined elections in simple ways, e.g. editing it, or even adding or subtracting a new set of election results to or from it, to highlight differences, or multiplying the results by a constant number. Any other

election (including the other user defined elections) can be set as the preceding election – i.e. the one that “swing from”, and “swing to” comparison calculations (and corresponding map display) are based on.

The results in the user-defined elections can be treated like any other set of results as far as the usual display, forecasting etc. functionality is concerned, and can be saved and loaded, using the save and load buttons, or a display update forced by using the display button. The data can easily be exported using the “Export” button and imported from elsewhere using the “Import” button. Estimates as well as actual results can be exported or imported – if the file extension used is “.est” then estimates will be assumed, otherwise result values will be assumed.

The main Import / Export functionality can also be used to read / write the data to / from a specified file using CSV format (so that it can be manipulated in Excel, for example). To use the main Import / Export functionality, select the relevant user defined configuration election (e.g. by using the Display button within the dialog, or by using the normal election selection list), and then select Import / Export Using Detailed Results View (e.g. by using the option on the file menu).

4.14. Display and General Settings

The Display and General Settings dialog is accessed from the Options menu or the cog (settings) symbol on the toolbar. It contains buttons linking to other configuration dialogs, plus a collection of display-related settings:

Display and General Settings

Backdrop

☐ None ☒ House of Commons Browse

☐ Image File: D:\Photos\Photo Album 2025\Mottisfont 2025-05-30\DSC01859.JPG

Drawing Optimisations

☐ Smooth Constituency Boundaries (Use Anti-Aliasing Even When Zoomed-In)

Display Settings

☒ Display Change Percentages ☒ Display Party Group Subtotals

☒ Display Party Group "Others" Last ☐ Display Swing compared to Old Elections

☐ Display ID on Title Line ☒ Display BC/CC after Constituency Name

☒ Display Forecast Seat Win Probabilities ☒ Display 1000s Separators For Large Numbers

☒ Display Constituency Result Notes ☒ Sort AMS Areas by Seats, then Votes

Tooltips

☒ Display Date ☒ Display Winner ☒ Display Majority ☒ Display Changes ☒ Display Brexit Info

Overall Summary

☒ Display UK Percentages ☒ GB Percentages ☐ GB Change Percentages

☒ Display Election Result Notes ☒ Exclude NOC from Local Election Councils Won Party Totals

☒ Display in Summed Seat or County or Region Order ☒ Display Detailed Losses/Gains Report

Sum votes and: ☒ Seats ☐ Counties ☐ Regions

☒ Allow For Speaker Voting With Governing Party When Calculating Majority

Automatic Map Lookup And Hide / Show Settings

☒ Select Best Map If Election Changes ☒ Select Best Map If Constituency Changes

☒ Select Best Map If Current Constituency Not On Current Map

☒ Prefer Maps Matching Election Year ☐ Prefer Summary Maps

Map Selection Criteria: Default (Favour Similar Maps)

☐ Hide Maps Not Matching Election Year ☐ Hide Graphics Pages

Recalculation Settings

☒ Automatically Calculate Total Votes ☐ Exclude Invalid Votes From Turnout

OK

Cancel

Colour Configuration

Map Markers

Statistics Display

Web Browser Config

Web Address Config

Chart Window Config

Results List Config

- **Backdrop** – specifies whether to display a blank backdrop, a picture of the House of Commons, or a user specified image file.
- **Drawing Optimisations** – specifies whether to always use anti-aliasing when drawing constituencies. This will have the effect of smoothing, but slightly blurring, the boundaries when zoomed in. Note that anti-aliasing is automatically used in some circumstances anyway when pixels might otherwise be omitted.
- **Display Settings** – controls various miscellaneous display settings. The Display Change Percentages option controls whether change percentages are displayed alongside the party vote totals and percentages in the results view. The Display Party Groups Subtotals option controls whether separate subtotals for each party

group are displayed. (Note: this will only have any effect if the “Display as Party Groups“ button is pressed.) The default group can also optionally always be displayed last. “Display ID on Title Line” causes the UK-Elect ID to be displayed after the constituency name in the constituency details view. “Display BC/CC after Constituency Name” causes BC (Borough/Burgh Constituency, i.e. mostly urban) or CC (County Constituency, i.e. mostly rural) to always be displayed after the constituency name (where relevant and known). The Display Forecast Seat Win Probabilities will display forecast estimates of each party’s chances of winning a particular seat. The Display Results Notes option displays notes about an election immediately below the detailed election result in the results view (or, optionally, in place of the detailed result, perhaps embedding it within the results notes). The Display 1000s Separator displays the thousands separator (usually a comma in most English-speaking countries) for large numbers (e.g. 12,345,678.9). The Sort AMS Areas option controls whether AMS areas are sorted by seats first, or by votes.

- **Tooltips Settings** – specifies whether the date, the winner’s name, the winning party/majority, details of vote and winning-party changes, and/or Brexit leave info should be displayed on the end of tooltips. Tooltips are the little popup windows that are displayed when the cursor is positioned over a constituency on a map.
- **Overall Summary Settings** – most of these are self-evident from the description. For example, options exist to control whether to display UK and/or GB percentages (optionally including GB change percentages), The “Display Election Result Notes” and “Display Detailed Losses And Gains Report” control whether that information is included on the overall summary – note that the election result notes (also known as the election result summary) can be user edited and may be short or lengthy (if present at all), and that the detailed losses and gains report is very detailed. An option is also provided to display in summed seat, county, or region order (i.e. to display the party with the highest number of seats, counties or regions won first, rather than that with most votes won.) This can also be used to display seats won, or counties won, or regions won. The “Allow for Speaker voting with governing party when calculating majority” option is used when displaying majority information. The Speaker does not vote except in a tie, in which case the convention is for the Speaker to vote for the status quo, e.g. for the governing party in the event of a vote of confidence. Therefore, for the purposes of majority calculation the effective number of opposition MPs is reduced, and that of the governing party potentially increased, by one – thus this option has the effect of increasing a governing party’s majority by two if a speaker exists (has been elected).
- **Automatic Map Lookup and Hide / Show Settings** – controls how (and whether) a map is changed when an election or constituency is changed, and whether a map or graphics page appears in the drop-down map list. If the map is being changed, then preference can be given to larger maps (with more constituencies), smaller maps (with fewer constituencies), or to maps with a similar number of constituencies to the original map. As a higher priority, preference can be given to maps matching the current election year. Preference can also be given to summary maps. Ahead of all these choices, preference will always be given firstly to maps with the current constituency on them, and then secondly to maps with a higher proportion of constituencies on them that match the currently displayed election. In addition, maps with a specified election year range outside of the year for the currently displayed election can be hidden so that they do not appear in the drop-down list of maps and graphic pages.
- **Automatically Calculate Total Votes** – calculates vote totals (rather than using user specified values)
- **Exclude Invalid Votes From Turnout** – if set, excludes invalid votes from turnout calculations.

4.15. Overall Appearance – Tabbed Views, etc.

The overall appearance of UK-Elect can be adjusted by using the options on the View / Application look submenu. The available options correspond to the general appearance of many Microsoft products – e.g. Windows XP or Office 2007.

UK-Elect also supports the use of tabbed views, something found in many modern programs – these can be enabled by using the “Tabbed Views” option on the view menu.

5. Using UK-Elect on Election Night

5.1. *Hints and Tips*

These hints and tips apply to a General Election but would be very similar for most other elections.

Note: very important – practice these steps before election night!

First, load the most up to date election file.

Second, press the “Guided Forecast” button (the button with the green triangle), and answer the questions that UK-Elect asks you. This will result in a forecast being done. If you are happy that the forecasting is working in the way that you intended then leave the forecasting settings unchanged, otherwise repeat the process and answer one or more of the questions differently.

Third (and **only** if you do intend to forecast based on actual election night results):

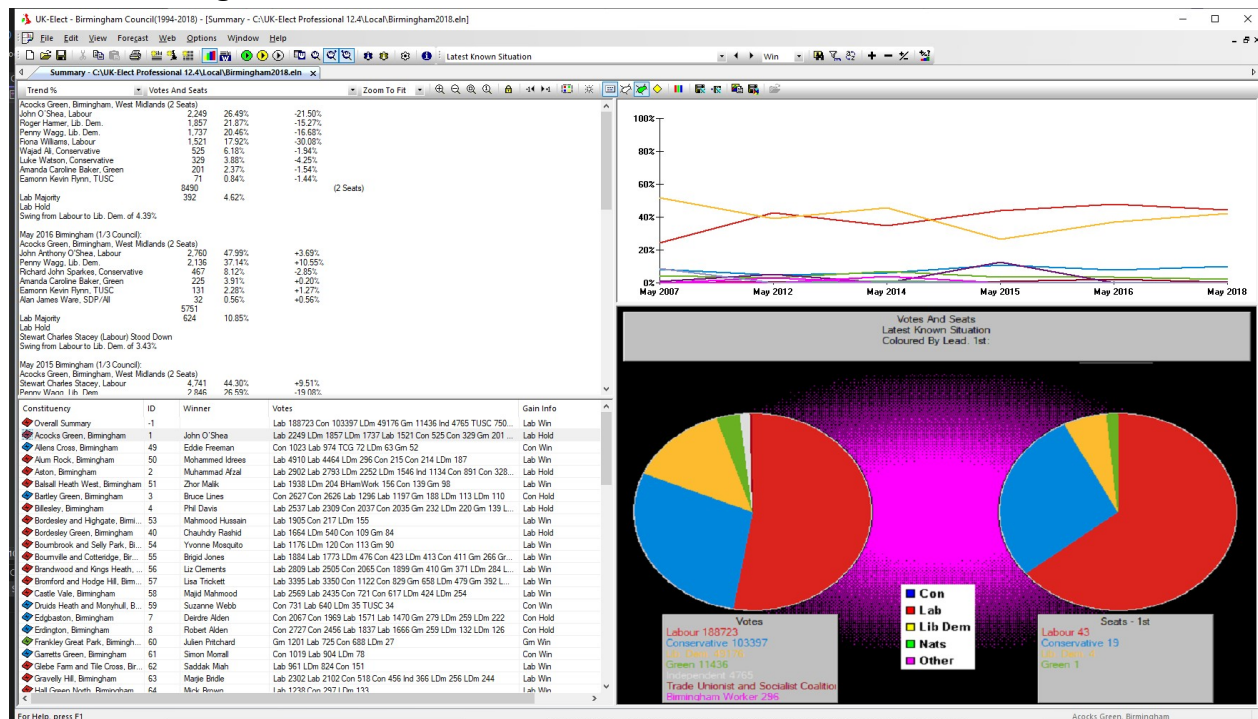
- Make sure that the “source of forecasting percentages” setting on the forecast configuration dialog is set to “election-night”. (If the current date is on or very close to the election date then the UK-Elect Guided Forecast functionality will offer to set this option automatically for you.)
- Try entering a new result by setting the election to “Latest Known Situation” and click on a constituency in the list, then hit the insert key or use the right mouse button and select the add result option, and, if prompted, choose the “new election result ” option from the list of buttons. Now enter the new result (e.g. copy the old result and change the figures a bit to simulate a swing) and hit OK.
- To easily see what percentages the forecast will be based on , choose the “target percentages” option from the forecast menu – this has the advantage that it will show the calculated percentages, and that “forecast”, “configure” and “opinion poll” buttons are available on the dialog, together with "recalculate", enabling changes to be made to the settings to see what effect it has on the calculated target percentages.
- To actually do a forecast press the yellow forecast button.

Now – practice entering a few more results and see what happens.

Note: When exiting UK-Elect, do not save your newly entered results, unless it really is election night!

6. Adding / Modifying Election Results

6.1. Creating a New Set of Election Results



Note: if you have a set of election results (e.g. for your local council) that you would like to be added to UK-Elect, then it is worth contacting support@ukelect.co.uk. It may be possible to include them in the next version and provide you with a copy of the results in UK-Elect format.

1. Create the Election File (.eln File)

The simplest way to create a new set of election results is the “New Election” option. This will ask a series of questions and bring up the appropriate dialogs to allow the creation and import of the new election data. It will prompt for details of counties, constituency definitions, parties, map, and graphics files that should be included. Optionally, results data can also be imported from an existing UK-Elect results file or from a spreadsheet file. Spreadsheet results data should be in comma-separated form, with a column of data for each party and a line for each constituency.

(An alternative is to copy an old election file and then edit the contents using a standard text-editor (e.g. copy Birmingham2022.eln to Coventry2023.eln). Using the file formats as given in Appendix C change the file appropriately. To create a constituency definition file copy an existing file such as Default.def and again edit it using the file formats in Appendix C as a guide. After editing the election and constituencies files run UK-Elect and select “Open” from the File menu. The new election file should now appear in the list of elections that can be loaded.)

If using the New Election option to create an election, the following dialog is displayed first:

UK-Elect [New Overall Election]

New Election Title File Update: Enabled Date OK

UK General Election UK First Past The Post Full Results (Votes) Constituencies Cancel

☒ Allow election category changes (advanced) ☐ Allow results to use different electoral systems (advanced)

File:

Definitions: Save As Save As Copy Select Different File Edit

Counties: Save As Save As Copy Select Different File Edit

Parties: Save As Save As Copy Select Different File Edit

Notes:

Description of New Election

This dialog can be used to enter the basic election information (name, date, and election filename etc.) and details of the type of election that it is. The first option (below the Election Title) is the Election Category (whether (UK General Election, Scottish Parliament, Welsh Parliament, Northern Ireland Assembly, London Assembly, London Mayor, UK Council, other UK Mayor, and several other international, and generic categories, including U.S. Presidential, Referendum and Other Election. Setting the election category initialises the other options on the same line – the Election Area (UK, Scotland, Wales, Northern Ireland, London, United States, Other etc.), the Electoral System (any of the UK-Elect supported types), whether Votes (an actual election) or Seats (a summary of an election), and the Electoral Area name (Constituencies, Wards, Councils, Counties, Regions, Districts, and many other types). For some categories, some of these options can be adjusted, for others all of them are fixed. For the “Other Election” category everything is adjustable.

After creating a new election, the same dialog can be used subsequently to adjust these settings – it is accessed from the “Edit Overall Election” and “Edit Election” menu options and toolbar buttons. The “Edit Overall Election” adjusts the settings for the main (.eln) file, and the “Edit Election” adjusts the settings for one set of results (e.g. the 2024 UK General Election).

After confirming this dialog, UK-Elect will next offer the opportunity to import a counties and regions definition file (e.g. Default.cty) which contains information about counties and the

regions to which they belong (one county can belong to several regions, e.g. Somerset is part of “South West England” and “England” and “Great Britain”). Note that counties and regions do not actually have to be geographical counties and regions, whether UK or otherwise, – they often are, but are really a method of grouping constituencies.

Next, UK-Elect will offer the chance to import a constituency definitions file (.def). If a suitable file is available with at least some definitions the same as for the election that you are creating, then using this is recommended as it will enable results data to be imported more easily (e.g. constituency IDs will match).

UK-Elect will then provide an opportunity to select a party definitions file (e.g. default.par) which contains details about the supported political parties. The default file includes definitions for common UK parties, but these are not always required, and other parties, including non UK parties can be defined and used.

UK-Elect also offers the opportunity to import one or more maps and graphics files (these can be in any standard graphics format, such as .jpg or .png), and associated indexes, which are used when colouring the maps. If necessary, new blank map index files can be automatically created by UK-Elect and map hotspots created using the main UK-Elect user interface. The user interface options to add and edit hotspots explain the different types of hotspots that can be created (standard and enhanced, where enhanced adds the ability to fix the colour configuration used for the display so the same criteria in use at the time of creation are always used for the display of that area of the map – this can be useful for STV by-position displays or colour keys etc.).

UK-Elect will next offer the chance to import data from, or directly use, an existing UK-Elect election results file. After that is done the Edit Election dialog will be shown, allowing the results file name and some other settings to be changed. Among the settings that can be changed are the election date and the “Boundaries Year”. This is normally set to zero (which implies the same as the election year) but can be different, e.g. if estimates for an old result (e.g. 2019) based on newer constituency boundaries are in use, in which case it can be used to specify the year that the new boundaries take effect (e.g. 2023).

UK-Elect Overall Election [2024 General Election]

File Update: Enabled

Overall: ID: Date Of Election:

Description:

UK General Election UK First Past The Post Full Results (Votes) Constituencies

☐ Allow election category changes (advanced) ☐ Allow results to use different electoral systems from main election (advanced)

Election:

Definitions:

Counties:

Parties:

Overall Election Notes:

This election file contains the results of the July 4th 2024 UK General Election, and many earlier UK General Elections. They were produced from, and checked against, multiple data sources. However, it is likely that a few errors may remain, especially as not all data sources agree on every detailed result or on the overall vote totals for some parties. This is especially the case for older elections.

Elections:22 (Containing Results:12) Results:7819 Maps:115 Parties:554 Party Groups:21 Regions:19 Counties:103 Districts:454

Finally, UK-Elect will offer the option to import results from a spreadsheet (.CSV) file using the results Import/Export functionality. Alternatively, results can be added using the user interface (or by editing the results text files directly).

2. Define the Constituencies

Constituencies can be added using the “Add Constituency” facility (see Section 6.2 for more details).

3. Enter the results

Use the “Add Result” facility to enter the results for the current, previous and old elections (see Sections 6.5 - 4.7).

4. Add More Maps and Graphics

You can use the Add Maps menu option to add more maps and graphics files. All of these are in Microsoft Windows Paintbrush (BMP) or JPG or GIF or PNG formats, so it is possible to design your own maps and graphics. See Appendix C for details of file formats.

6.2. Adding and Editing Regions, Counties and Districts

- From the Edit menu, choose Add or Modify Regions, Counties and Districts

The following dialog will be displayed:

Add or Modify Regions, Counties, and Districts [X]

Regions / Countries / States / County Groups

South West England [v] References: 106 ☐ Deleted

Forms Part Of:

Southern England (Outside London) [v]

<Not Selected> [v]

<Not Selected> [v]

<Not Selected> [v]

Add / Update Delete Restore Purge Unused Restore All

Counties / Sub-Regions / District Groups

Devon [v] References: 61 ☐ Deleted

Forms Part Of:

South West England [v]

Southern England [v]

Southern England (Outside London) [v]

England [v]

England and Wales [v]

Great Britain [v]

<Not Selected> [v]

Add / Update Delete Restore Purge Unused Restore All

Districts / Councils / Areas

Torbay [v] References: 4 ☐ Deleted

Forms Part Of:

Devon [v]

Add / Update Purge Unused Delete Restore All Restore

Close Import From File Export To File

This is used for editing, and settings the relationships between, “Regions”, “Counties” and “Districts”. It is useful to note that although “Regions” typically are regions, “Counties” are counties, and “Districts” are districts, this does not *have* to be the case. “Regions” can refer to *any* grouping of “Counties”, which themselves do not have to be geographical counties, and “Districts” simply refers to a sub-division of “Counties”. The relationship with constituencies is that a constituency **must** belong to at least one “County”, which in turn must belong to at least

one “Region”. A “District” **must** belong to one “County” (although a “County” can have many “Districts”). A constituency may (optionally) include some or all of one or more “Districts”.

In addition, “Regions” may form part of (be a child of) other “Regions” (e.g. England, Wales and Scotland form part of Great Britain). If a “County” is part of a “Region”, then it is also treated as part of all parent and grandparent (etc.) “Regions” of that “Region” – i.e. the “Regions” to which that “Region” belongs directly or indirectly.

Note that a County may optionally belong both directly and indirectly to a region – e.g. Devon may be shown as part of South-West England and England and Great Britain etc., but this actually makes no real difference compared to simply being part of South-West England if South West England is part of England and England is part of Great Britain.

The “Purge Unused” button makes as “pending deletion” all items for which a reference (directly or indirectly by a constituency definition) cannot be found. Such items will not be saved when the county definitions file is written unless they have been restored. Note that the default regions, counties, and districts appropriate for the current election area (UK, Wales, Scotland, England, Northern Ireland etc.) will be automatically recreated if required the next time the election is loaded. No default data is recreated for the “Other” area.

The region, county and district definitions can also be exported to another file or imported from one (existing definitions will not be deleted first).

6.3. *Modifying Map and Chart Configuration*

- From the Edit menu, choose Edit Map and Chart Configuration
The Edit Map and Chart Configuration dialog will be displayed.

Edit Map And Chart Configuration

Map Name: Map Size: 4800 x 7800 Pixels

Map Image File: UKCONS2023.PNG Map Index File: UKCONS2023.MPI

Year Range: From: To: ☒ Treat As Summary ☐ Treat As Primarily Graphics Page (Not Map)

Map Summary Info Box

☒ Show Info Box Top Left: Bottom Right: Font Size: ☒ Background ☒ Border

Map Constituencies

Constituencies On Map: 651 Hotspots On Map: 3438 ☐ Allow Transparent Backgrounds Font Size:

To edit constituency colour locations use the Edit Menu Edit Map Hotspots option. ☐ Use Border Constituency Colouring Method

Hide Grid

Grid X: Grid Y:

Charts

Chart 1 : Current Result

Top Left: Bottom Right: Max Vals: Max Elections:

Use Constit/Sum ID: Information Box Top Left: Bottom Right: ☒ Background ☒ Border

☐ Chart Background ☐ Border Font Size: Max Text Items: Max Horizontal Text Items:

Chart 2 : Votes Summary

Top Left: Bottom Right: Max Vals: Max Elections:

Use Constit/Sum ID: Information Box Top Left: Bottom Right: ☒ Background ☒ Border

☐ Chart Background ☐ Border Font Size: Max Text Items: Max Horizontal Text Items:

Chart 3

Top Left: Bottom Right: Max Vals: Max Elections:

Use Constit/Sum ID: Information Box Top Left: Bottom Right: ☐ Background ☐ Border

☐ Chart Background ☐ Border Font Size: Max Text Items: Max Horizontal Text Items:

Chart 4

Top Left: Bottom Right: Max Vals: Max Elections:

Use Constit/Sum ID: Information Box Top Left: Bottom Right: ☐ Background ☐ Border

☐ Chart Background ☐ Border Font Size: Max Text Items: Max Horizontal Text Items:

The main configuration information associated with a map can be edited using this dialog, including:

- **Map Name** - specifies the name of the map (as displayed in the dropdown map selection list)
- **Map Image and Map Index files** - specifies the filenames of the map file and the map index file.
- **Year Range** - specifies the range of election years this map is most appropriate for. Either or both values can be left at zero, but automatic map selection will be improved if a range is specified (e.g. 2010 to 2022)
- **Treat As Summary Map** – specifies the map is intended as an overall summary. This can improve automatic map selection.
- **Treat As Primarily Graphics Page** – specifies the map is intended primarily as a container for graphics (e.g. charts). This can improve automatic map selection.
- **Map Summary Info Box** – These configuration options control the location and the fonts used for the main map summary box, and whether the background and border are drawn.
- **Map Constituencies** – Can be used to control the fonts used when drawing constituency names on a map, and whether the constituencies can have transparent backgrounds. (If not transparent, they are coloured grey)

when, for example, no valid data is available for that constituency for the current result.) For some maps the constituency colouring method (flood to border, or flood same-coloured surface) can be chosen.

- **Charts** – This configuration controls the display of the units and area charts on the map (normally the units are votes, and the areas are seats, although this may vary depending on the election loaded). The data source can be votes summaries, seats summaries, the currently selected constituency (or sum, e.g. a county or region votes or seats summary) or a specific constituency (or calculated sum). The choice of displaying votes or seats can be left to be automatically selected, or votes or seats can be specifically chosen. The type of the chart (any of those also available in the Chart View window, e.g. pie charts or 3D Bar Charts), the exact location of the charts (up to 20), the maximum number of values and previous elections, the background, the border, and the fonts used can all be configured. The “Max Items” and “Max Horizontal Items” control the layout of text items within the information boxes associated with the graphics.

A grid can optionally be displayed, to make the positioning of items easier – the grid X and Y spacing can be directly specified.

6.4. Adding a New Constituency

- From the Edit menu, choose Add Constituency
The Add/Edit Constituency Information dialog will be displayed.

Based on constituencies:	Amount:	Total from:	Last Known Electorate - info only, may be estimate or unknown (0):
Aberavon [0760] [w07000049]	81680	100000	51450
Dgmore [0789] [w07000074]	25960	100000	57934
Bridgend [0766] [w07000073]	17200	100000	64245
Neath [0786] [w07000069]	1590	100000	57032
	0	0	0
Sum of Amount column:			126430

- **Name** - specifies the name of the new constituency.
- **ID** - specifies the internal identifier of the constituency (normally in the range 1 to 1499).
- **ID2** - specifies an optional text identifier (typically an ONS, GSS, ANSI or ISO code, representing a UK or worldwide geographical or electoral area). This can be used in web lookups etc.
- **ID3** - specifies an optional text identifier, e.g. an alternative name or web address which can be used in web lookups etc.
- **County** - specifies the County that contains the new constituency.
- **Urban/Rural Type** – whether a (mostly urban) Borough/Burgh Constituency (BC) or a largely rural County Constituency (CC)
- **Class/Category Number** – a number that can optionally be used for different classes of election seats. It is used by, for example, US Senate Elections that have classes 1 to 3 but can also be used generally for filtering and forecasting purposes.
- **Region** – Name of associated region (regions are usually geographical, but don't have to be – they can represent any grouping of constituencies)
- **Area** – Name of associated area (if any)
- **Tags** – User-defined tags that can be used for filtering which constituencies are filtered, displayed etc. Tags entered at constituency level apply to all results for that constituency.
- **Councill1 ..Councill3** – Name of any associated district/unitary councils (optional)

- **Wards** - Wards which constitute this constituency (an optional comma-separated list)
- **Based on Constituencies** – Used after boundary changes. Each line consists of a constituency name, an amount (usually in votes, although the value 1 is a special value that represents 100%), a calculated “total from” which represents the **total** amount of votes transferred from the specified base constituency, and an “original total” field which represents the original total electorate for the base constituency at the last election (if known, otherwise use 0).
- **Treat amounts as internal proportions** - If checked, then the amounts will be treated as internal proportions rather than transfer amounts i.e. if set to 85 for Constituency A and 15 for Constituency B then it will be assumed that 85% of the electorate for **this** constituency come from Constituency A and 15% from Constituency B

6.5. *Modifying a Constituency*

- From the Edit menu, choose Modify Constituency

The Edit Constituency Information dialog will be displayed (similar to the Add Constituency Information dialog).

6.6. *Deleting a Constituency*

- From the Edit menu, choose Delete Constituency - a confirmation dialog will be displayed.

6.7. *Modifying a Result*

- From the Edit menu, choose Edit Result

The Edit Result dialog will be displayed.

Edit Result

Election:
Election Electoral System: First Past The Post
Constituency Electoral System: First Past The Post

2019 to 2024 By-Elections and Changes of Party
Threshold % 0

Constituency:
☐ Allow moving result to a different constituency.
Add New Constituency

Blackpool South [1048] [E14000573]
Edit Constituency Definition
Adjust Votes Total To Previous

Date:
Comment:
Tags:

02 May 2024

☐ Change of Party
Lines without numbers:
☒ Error
☐ Ignore
☐ Add to Next
☐ Add to Prev
☐ Remove Surplus Capitals

Electorate: 0
☐ Approximate (e.g. from turnout)
Turnout %: 0
☐ Display/Input Surname First

Invalid votes: 0
Total 18375
Number of Seats 1
☐ Winner Takes All
☐ Display/Input Party First

☒ Include in County, Regional and Overall Seat Sums
☒ Include in County, Regional and Overall Vote Sums
Votes Per Person: 1

Candidate	Party	Votes:	
Chris Webb	Lab	10825	(58.91%)
David Jones	Con	3218	(17.51%)
Mark Butcher	ReformUK	3101	(16.88%)
Andrew Cregan	LD	387	(2.11%)
Ben Thomas	Grn	368	(2.00%)
Stephen Black	Ind	163	(0.89%)
Kim Knight	AllForDemAndFreedom	147	(0.80%)
Howling Laud Hope	Loony	121	(0.66%)
Damon Sharp	NONPOL	45	(0.24%)

Result Notes (Displayed below or in place of detailed result). [#RESULT] can be used to embed result within the notes.
☐ Hide Detailed Result

Associated Election Filename:
Description

- **Main result field** – Each line usually consists of a name field, a party field, and a votes field. Each of the fields can be separated by a tab, or a comma, or two spaces.
- **Election** – can be used to change the election name.
- **Constituency Electoral System** – This is an advanced option which can be used to set the constituency electoral system to something different from the election. For UK elections this option is normally greyed out (adjustment for AMS areas and constituency seats is automatic).
- **Threshold %** - used for some PR elections (e.g. London Assembly). Any party winning below this percentage is not eligible to receive AMS top-up or party list seats. Normally not used (and disabled).
- **Constituency** - specifies the constituency for which the result is to be added.
- **Allow moving result to a different constituency** – if enabled, a different constituency can be selected from the drop-down list. The result will then be moved to that constituency ID. This is sometimes useful when, for example, a result has accidentally been entered for the wrong constituency! (Note: choosing a different constituency is always enabled when a new result is being added.)
- **Date** - specifies the date of the election.
- **Comment** – can be used to add a short comment about the result

- **Tags** – can be used to add user-defined tags to the result. These can be used when filtering and displaying constituencies. Tags entered at result level apply only to that result.
- **Estimate**- (if visible) whether an actual result or an estimate.
- **Change of Party** – (if visible) specifies whether the election was the result of the change of party (e.g. defection, or election as speaker) of the current MP.
- **Electorate** - specifies the number of people eligible to vote in the election.
- **No of Seats** - specifies the number of seats to be won in the election.
- **Winner Takes All Seats** – used for some non-UK elections. If set, the first-place party will win all the seats associated with this constituency (i.e. a block seat allocation or electoral college electoral system).
- **Invalid Votes** - specifies the number of invalid (e.g. spoiled) votes.
- **Result Notes** –Optional notes to be displayed below, or in place, of the detailed result (if the **Hide Detailed Result** checkbox is set). This allows an election result to be displayed in a different way, or together with full explanatory notes. If the notes include the text [#RESULT] then that text will be replaced with the detailed results text – this can be used to embed the result within a longer explanation.
- **Associated Filename** - the name of an election (.eln) file associated in some way with the result.
- **Description** – Description of the associated file, or, more generally, of the result
- **Included in County, Regional and Overall Seat Sums** – Usually True, but can be set to false if this constituency result seats total is included in some other constituency already being counted. This can be useful for some non-UK elections that allocate some seats for individual districts and some for overall state totals (that already include the district vote totals).
- **Included in County, Regional and Overall Vote Sums** – Similar to the option above, but for votes rather than seats.
- **Votes Per Person** – Usually one (and with editing disabled), but can be set for some multi-seat elections, e.g. for some UK local council elections where voters can vote for more than one candidate.
- **Description** – Description of the associated file, or, more generally, of the result

The following options can also be useful when pasting in results obtained from web pages etc.:

- **Display/Input Surname first** – if set, surnames are displayed before the rest of the name.
- **Remove Surplus capitals** – converts upper case text into mixed-case.
- **How to treat lines without numbers** – useful when pasting in results from elsewhere that are split across more than one line. If set to “ignore” then lines not including any number are treated as comments; if set to “add to next” then such lines are added to start of next line; if set to “Add to prev” then such lines are added to the end of the preceding line.

The Add Constituency option can be used to add a constituency that does not already exist in the database.

The Browse Parties option will show a list of currently available parties in the database.

When entering candidates for a future election the vote total is not required and can be set to 0. **To indicate that a party is not standing a candidate itself but supports another party** (or candidate) that is standing specify the destination party name preceded by a ‘>’ symbol. For example, >LD as the candidate name would indicate that the Liberal Democrat party is being supported, so >LD PC (>LD as the candidate name and PC as the party name) would indicate that Plaid Cymru is supporting the Liberal Democrat candidate in that constituency.

6.8. Adding a New Result

- From the Edit menu, choose Add Result. The Add Result dialog will be displayed.

Choose the type of election result to add and select the Next-> button to add the new result details using the dialog shown below:

Add Result

Election:
Election Electoral System: First Past The Post
Constituency Electoral System: First Past The Post

By-Elections
Threshold % 0

Constituency:
Constituency ID lookup range: 2001 to 2872
Edit Constituency Definition
Add New Constituency
Adjust Votes Total To Previous

Aberafan Maesteg [2001] [w07000081]

Date:
Comment:
Tags:

☐ Change of Party
Lines w/o numbers: ☒ Error ☐ Ignore ☐ Add to Next ☐ Add to Prev
☐ Remove Surplus Capitals

Electorate: 0
☐ Approximate (e.g. from turnout)
Turnout %: 0
☐ Display/Input Surname First

Invalid votes: 0
Total 35755
Number of Seats 1
☐ Winner Takes All
☐ Display/Input Party First

☒ Include in County, Regional and Overall Seat Sums
☒ Include in County, Regional and Overall Vote Sums
Votes Per Person: 1

Candidate	Party	Votes:	
Previous Result For Aberafan Maesteg CC:			
Stephen Kinnock	Lab	17838	(49.89%)
Mark Griffiths	ReformUK	7484	(20.93%)
Colin John Deere	PC	4719	(13.20%)
Abigail Mainon	Con	2903	(8.12%)
Nigel Hill	Grn	1094	(3.06%)
Justin Mark Griffiths	LD	916	(2.56%)
Captain Beany	Ind	618	(1.73%)
Rhiannon Morrissey	Heritage	183	(0.51%)

Result Notes (Displayed below or in place of detailed result). [#RESULT] can be used to embed result within the notes.
☐ Hide Detailed Result

Associated Election Filename:
Description

Most of these options and buttons are the same as for the Edit Result dialog described in the previous section. The Constituency ID Lookup range can be used to restrict the constituencies shown in the dropdown list, which is useful when entering constituencies in a narrow range, e.g. for a particular region, or to avoid confusion with older versions of constituencies with a lower ID but the same or very similar names.

When entering candidates for a future election the vote total is not required and can be set to 0. **To indicate that a party is not standing a candidate itself but supports another party** (or candidate) that is standing specify the destination party name preceded by a '>' symbol. For example, using >LD as the candidate name would indicate that the Liberal Democrat party is being supported, so >LD PC (>LD as the candidate name and PC as the party name) would indicate that Plaid Cymru is supporting the Liberal Democrat candidate in that constituency.

6.9. Deleting a Result

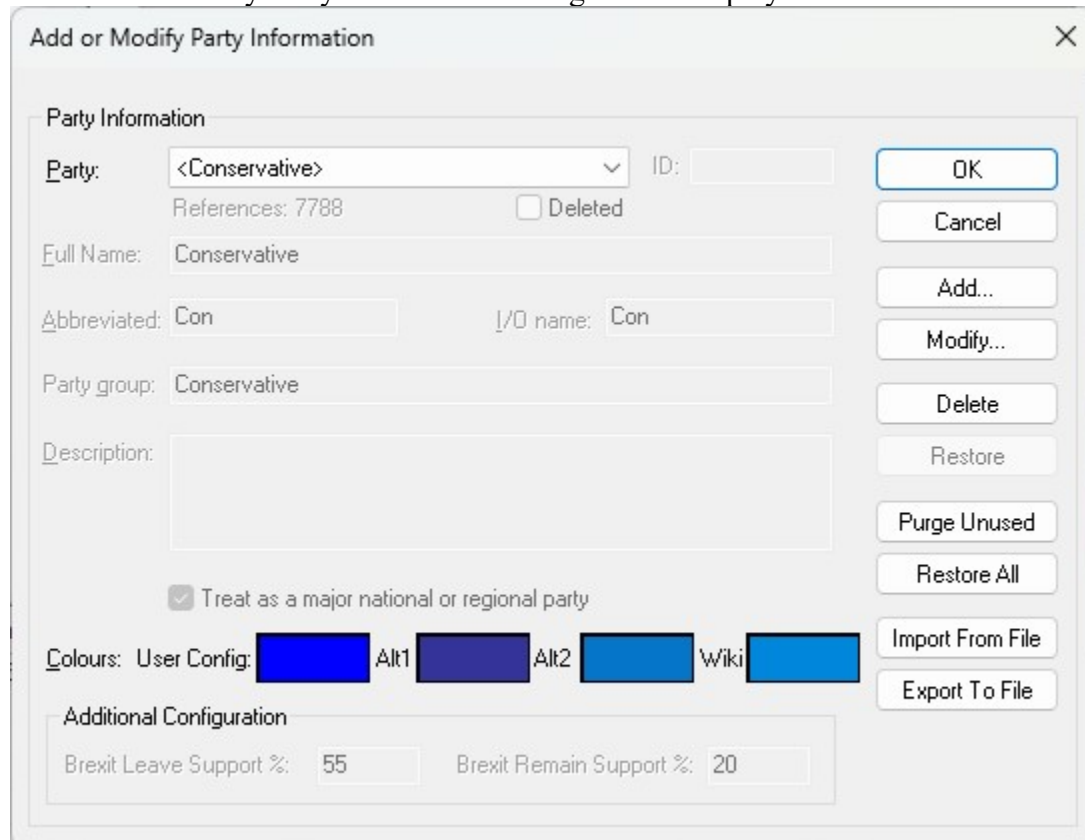
- From the Edit menu, choose Delete Result

A confirmation dialog will be displayed.

6.10. Adding/Modifying a Party or Party Group

- To add or modify a party, choose Modify Parties from the Edit Menu

The Add or Modify Party Information dialog will be displayed.



The dialog box is titled "Add or Modify Party Information" and contains the following fields and controls:

- Party Information** section:
 - Party:** A dropdown menu showing "<Conservative>".
 - ID:** An empty text field.
 - References:** A text field showing "7788".
 - Deleted:** An unchecked checkbox.
 - Full Name:** A text field showing "Conservative".
 - Abbreviated:** A text field showing "Con".
 - I/O name:** A text field showing "Con".
 - Party group:** A text field showing "Conservative".
 - Description:** A large empty text area.
 - Treat as a major national or regional party:** A checked checkbox.
 - Colours:** A section with four color swatches: "User Config" (blue), "Alt1" (dark blue), "Alt2" (medium blue), and "Wiki" (light blue).
- Additional Configuration** section:
 - Brexit Leave Support %:** A text field showing "55".
 - Brexit Remain Support %:** A text field showing "20".
- Buttons:** A vertical column of buttons on the right side: "OK", "Cancel", "Add...", "Modify...", "Delete", "Restore", "Purge Unused", "Restore All", "Import From File", and "Export To File".

- Party** - specifies the name of the political party.
- ID** - specifies an (optional) ID, e.g. an official or commonly used ID code for the party.
- Full Name** - specifies the full name of the party e.g. Conservative not Cons.
- Abbreviated** - specifies the abbreviation used for the party e.g. Cons.
- I/O Name** - specifies the name used when saving to, or reading from, UK-Elect data files.
- Party Group** - specifies an electoral alliance. Normally the Party Group is the same as the Party Name.
- Description** - specifies a full description of the party
- Treat As Major Local Or National Party** - if set, can affect some calculations (e.g. notionals estimates)
- Colours** - shows the colours used to represent the party in UK-Elect graphics. (These are the user-configurable colour, two alternative colours, and a colour similar to that commonly used in Wikipedia.)
- Leave Support**- specifies the percentage of supporters of this party who support leaving the EU
- Remain Support**- specifies the percentage of supporters of this party who support remaining in the EU

Note that the total of leave and remain values above must not exceed 100% but can be significantly less where some supporters are undecided or not motivated by Brexit. If the level for a party is unknown or not significant then leave both values at zero.

Buttons are available on the dialog to add a new party or modify the selected one. In addition, a party can be marked as deleted, or the “Purge Unused” option can be used to automatically mark as deleted all parties that UK-Elect does not have a current reference for (i.e. the “references” count is zero.) Use this option cautiously, as the parties file can be shared, and the unused parties might be used by a different election (.eln) file. UK-Elect will recreate basic party data if required, but some information (full name etc.) will be lost or set to the short form of the name.

Deleted and purged parties are not immediately deleted, simply marked as pending deletion which means they won’t be saved to disk the next time the parties file is saved and will therefore be lost when it is next loaded. Until the parties file is saved and reloaded, they can be restored using the “Restore” and “Restore All” buttons.

When modifying the data additional information will be displayed.

Modify Party [X]

Name: ID:

Optional Information (will default to same as Name)

Full name:

Abbreviated: I/O name:

Party group:

Description:

Aliases:

☒ Treat as a major national or regional party (e.g. highlight in selection lists)

Colour Configuration

Red: Green: Blue:

Current Party Colours

User Configurable Alternative 1 Alternative 2 Wikipedia

Additional Configuration

Brexit Leave Support %: Brexit Remain Support %:

Note: Total of above should be between 0 and 100%

Remainder are assumed to be neutral/undecided or only very weakly leave or remain

- **Aliases** - specifies alternative names for the party (used when recognising party name during data entry).
- **Colour selection** - the colour can be changed by clicking on a Select button to display a palette from which a colour can be selected, or by typing in the red, green and blue component values (0 - 255). Default colours for that party (as used by, e.g., Wikipedia) can also be loaded by selecting from a drop-down list and then pressing the Load button. Colours can also be saved to the default colours by selecting the appropriate colour category (e.g. Wikipedia) and then using the Save button. Save All will overwrite all the colours for that party (user-configurable, alternative 1, alternative 2, Wikipedia) with the currently displayed colour. Note that all the current colours for that party are displayed in the “Current Party Colours” group box.

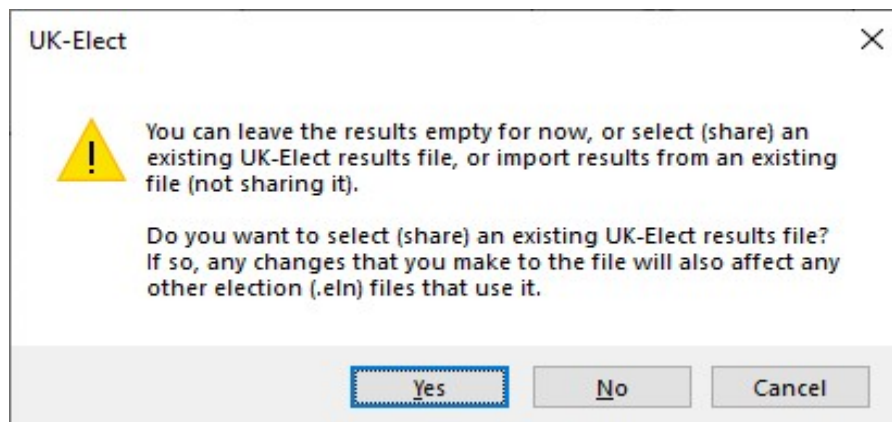
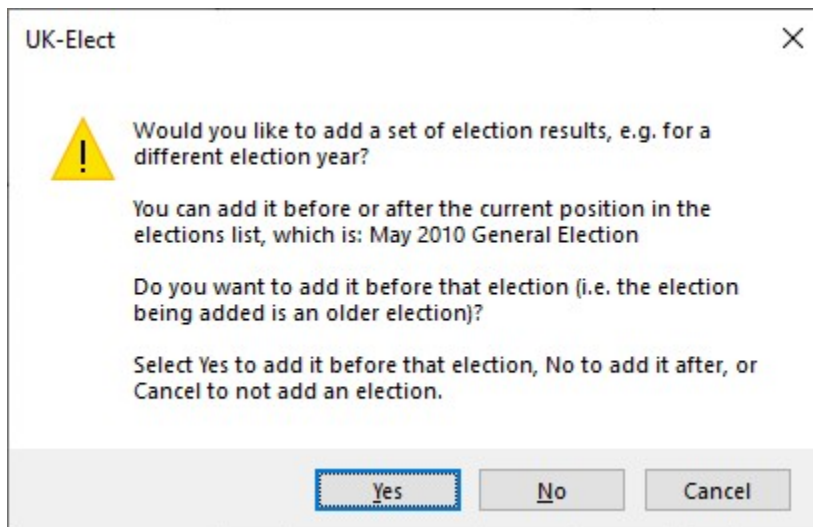
To add or modify a Party Group, choose Modify Party Groups from the Edit Menu. Editing of Party Groups is done in the same way as Parties.

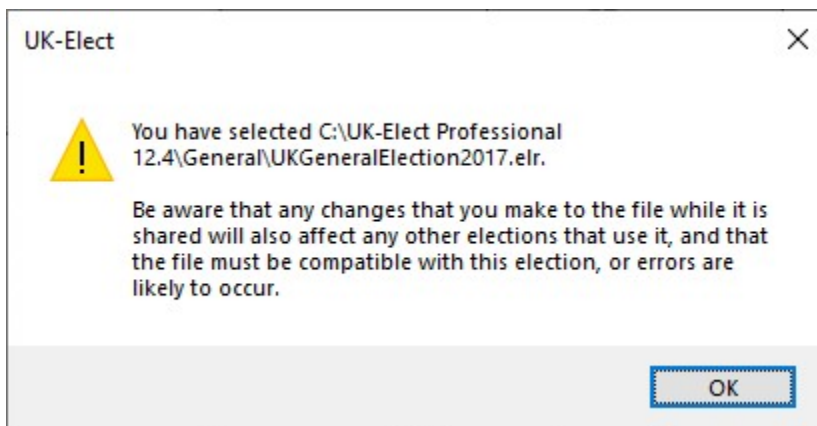
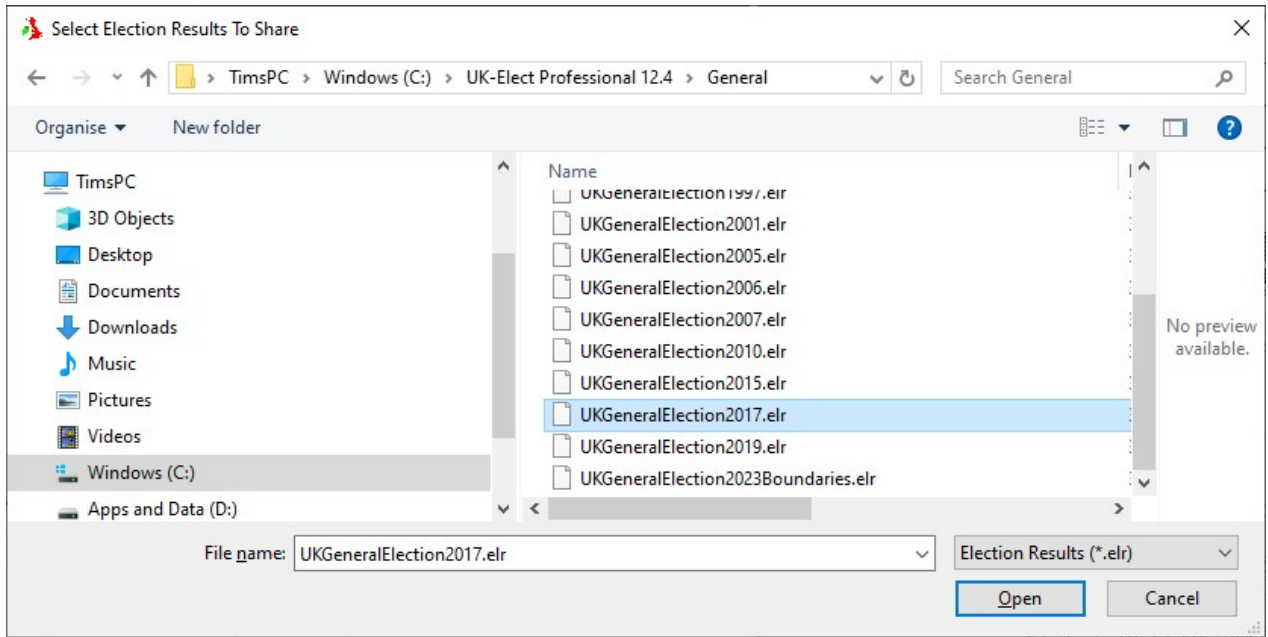
6.11. Adding an Election

- From the Edit menu, choose Add Election

A series of dialogs will be displayed, guiding you through the process of adding a new set of election results before or after the currently displayed election.

A typical selection of dialogs is shown below:

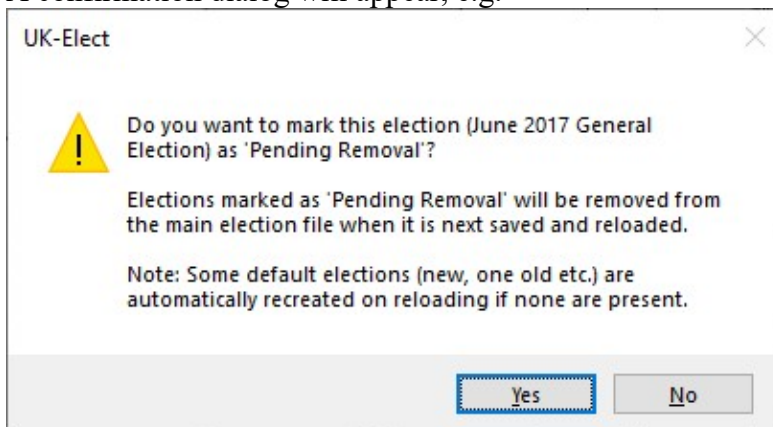




6.12. Removing an Election

- From the Edit menu, choose Remove Election

A confirmation dialog will appear, e.g.



The election can then be marked as removed and will not be saved to disk the next time that the overall election file is saved.

6.13. Vote Transfer Preferences

It is also possible to set “Vote Transfer Preferences” by pressing the relevant button on the Modify Party dialog. The vote transfer preferences are used to determine how votes are redistributed when the Single Transferable Vote, Alternative Vote or Two Round electoral system is in use. It is also can be used for tactical voting using the First Pass The Post system.. The “Vote Transfer Preferences” dialog is shown and described below:

Vote Transfer Preferences [Aontú]

Vote transfer preferences for same party

Percentage who give next preference to same party as first: 90

Vote transfer preferences for other parties

☐ Ignore (no vote transfer)

☐ Same proportion as constituency 1st preferences

☒ Use specified percentages (treated as ratios):

Party:	Percentage:
<Fianna Fáil>	30
<Sinn Féin>	17.5
<No Vote Transfer>	12.5
<Fine Gael>	10
<Green>	5
<Labour>	2.5
<Social Democrats>	2.5
<Any Party>	0
<Any Party>	0
<Any Party>	0

Preferences for parties not shown above

☐ Ignore (no vote transfer)

☒ Same proportion as constituency 1st preferences

☐ Use specified percentage: 0

OK

Cancel

Forecast

- **Vote transfer preferences for same party** – this option can be used to control transfer of votes between candidates of the same party. If one or more eligible candidates of the same party exist, then the specified percentage of transferable votes (in total) will be transferred to those candidates before the vote transfer for other parties’ settings are processed. Those settings are described below.
- **Ignore** – votes for the current party are not transferred to any other.

- **Same proportion as constituency 1st preferences** - votes are redistributed in the same proportion as that between the not already eliminated parties in the constituency result (e.g. if the Conservatives and Liberal Democrats each won 40% of the constituency vote, and Labour were last with 20% and were eliminated, then 50% of their vote would go to each of the other two parties, which would each increase their total by 10% of the original vote total).
- **Use specified percentages** – directly specifies the percentage ratios to use. Please note that these are actually ratios and need not add up to 100%. What matters is the relative ratio between the parties – e.g. a party set to receive 50 “percent” will always receive twice the number of votes as one set to receive 25 “percent” from the same party, but always provided that it has not already been eliminated (and that it stood in the constituency in the first place!). “No Vote Transfer” can also be selected as an option – any votes calculated for transfer to that “party” will not be redistributed.
- **Preferences for parties not shown above** – is used to control the votes received by all parties not directly specified (e.g. minor parties only standing in a few constituencies).

6.14. Changing Key Election Settings, and Importing and Exporting Data.,

The “Edit Overall Election” and “Edit Election” dialog can be used to change key settings for the overall election file (.eln file) or the currently displayed results. It can also be used to export data and to select different files.

UK-Elect Overall Election [2024 General Election]

File Update: Enabled

Overall: 2024 General Election Short Title: 2024 GE ID: Date Of Election: 4 July 2024

Description:

UK General Election UK First Past The Post Full Results (Votes) Constituencies

☐ Allow election category changes (advanced) ☐ Allow results to use different electoral systems from main election (advanced) Full/Partial Election: Full Election

Election: C:\UK-Elect Professional 13.0\General\UKGeneralElection2024.eln

Definitions: UKGeneralElection2023Boundaries.def Save As Save As Copy Select Different File Edit

Counties: UKGeneralElection2023Boundaries.cty Save As Save As Copy Select Different File Edit

Parties: UKGeneralElection2023Boundaries.par Save As Save As Copy Select Different File Edit

Overall Election Notes:

This election file contains the results of the July 4th 2024 UK General Election, and many earlier UK General Elections. They were produced from, and checked against, multiple data sources. However, it is likely that a few errors may remain, especially as not all data sources agree on every detailed result or on the overall vote totals for some parties. This is especially the case for older elections.

The 2019 notional results included in this file were based on the 2019 UK notional results compiled for BBC/ITN/Sky/PA by Professors Colin Rallings, Michael Thrasher, David Denver and Nicholas Whyte. These 2019 estimates are provided here for comparison of seat gains and losses with media sources. If any use of these estimates is made then please include full appropriate acknowledgements. Please also note that no guarantee is made that the estimates included here are identical to the final version of the BBC/ITN/Sky/PA estimates. If this is important then please consult those estimates directly.

A full acknowledgement is made here:
2019 Estimates compiled by Professors Colin Rallings and Michael Thrasher on behalf of BBC News, ITV News, Sky News and the Press Association. Calculations for Scotland done by Professor David Denver, those for Northern Ireland by Nicholas Whyte.

Thanks are also given to Harry Hayfield for his work in creating a preliminary copy of the 2024 General Election results based on data from the House of Commons Library, <https://commonslibrary.parliament.uk/>

Elections:30 (Containing Results:20) Results:8016 Maps:115 Parties:634 Party Groups:21 Regions:19 Counties:103 Districts:454

The overall settings discussed in section 6.1 can be adjusted using this dialog. In addition, the results, constituency definitions, county definitions, and party definition files can be Saved As (changing the name), Saved As Copy (saved to a different file, but retaining the same name in the user interface), or a different file can be selected, which will be used the next time that the current UK-Elect election file is loaded.

Many of the same settings can also be changed from the Edit Election dialog, which allows the chance to save the currently displayed election results to a new file or select a different results file. This dialog can also be used to specify whether a set of results represents a full election (e.g. a UK General Election) or a partial election (e.g. a set of by-election results). This information is used for comparison purposes, and when using the “Next Full or Comparable Election” and “Previous Full or Comparable Election” buttons on the toolbar.

The Edit Election dialog also displays some statistics (number of constituencies etc) about the displayed results.

UK-Elect Election [July 2024 General Election]

File Update: Enabled ☐ Pending Removal Date Of Election: 4 July 2024 Boundaries Year (If Different): 0

Election: July 2024 General Election Short Title: Jul 2024 ID:

Description:

UK General Election UK First Past The Post Full Results (Votes) Constituencies

☐ Allow election category changes (advanced) ☐ Allow results to use different electoral systems from main election (advanced) Full/Partial Election: Full Election

Results: UKGeneralElection2024.elr Save As Save As Copy Select Different File

Definitions: UKGeneralElection2023Boundaries.def Save As Save As Copy Select Different File Edit

Counties: UKGeneralElection2023Boundaries.cty Save As Save As Copy Select Different File Edit

Parties: UKGeneralElection2023Boundaries.par Save As Save As Copy Select Different File Edit

Election Result Notes - July 2024 General Election:

Seats:650 Constituencies:650 Results:650 First Past The Post:650 STV:0 (Seats 0) AMS Areas:0 (Seats 0) Party List:0 (Seats 0) Alternative Vote:0 Supplementary Vote:0

6.15. Updating After a New Election (e.g. a General Election) is Completed

On a full election night (e.g. for a General Election) new results can be entered as they occur. This is useful for displaying the current situation, and forecasting based on the new results. However, after the election is complete it is necessary to update the election files so that future forecasts are based on the newly completed election. This is done by using the “Update After New Election” option on the Edit Menu

6.16. Boundary Changes

UK-Elect provides considerable support for coping with the effects of boundary changes. One important feature is the Boundary Change Import dialog:

Import Boundary Change Information

Use this option to import boundary change information for constituencies affected by boundary changes.

Using this information, UK-Elect can estimate what the results would have been at the previous election had they been fought using the new The boundary change information can be edited using the Edit Constituency option.

Note: Boundary change information will only be updated for constituencies which match the current Filter Settings. Existing info will only be overwritten if the check-box below is selected.

Update settings

Old Constit ID Range: 701 To: 1533 Set to Default ID Ranges (2023+)

New Constit ID Range: 2001 To: 2799 Set to Pre-2023 Default ID Ranges

☒ Overwrite existing change information ☒ Overwrite Existing District / Ward Names

☐ Overwrite new constituency names ☐ Auto-Accept constituency name matches

☐ Convert Upper Case Names to Mixed ☒ Validate all IDs are within old and new ranges

CSV File format

No of lines to ignore at start: 0 Column number to ignore: 0

☐ Include District and Ward Name Fields At Start of Each Line

File Format (column order for each line)

☒ NewConstitNameOrID,OldConstitNameOrID,Amount

☐ Amount,OldConstitNameOrID,NewConstitNameOrID

☐ NewConstitName only (can be used to update new name and BC/CC type)

☐ Include separate sub-ward amount field and interpret main amount as target ward total

☒ Treat amounts as percentage of old constituency vote totals rather than vote counts

Note: ID can be ID or ID2. See FileForm.Txt for full details of suitable file formats

- **Old Constituency ID Range** – the range of constituency IDs used for “old” (pre-boundary change) constituencies.
- **New Constituency ID Range** – the range of constituency IDs used for “new” (post-boundary change) constituencies.
- **Overwrite check-boxes** – used to control whether existing boundary change information (including the names of new constituencies, and the BC/CC type) is overwritten.

- **Auto-Accept constituency name matches** – constituencies can be represented in the import files as names, rather than IDs. (In fact, this is normal where the original information was imported from some external source.) In that case, if UK-Elect thinks it recognizes the constituency when it is reading an import file, but the name match is not exact, it will ask the user to confirm the match. If this option is set, it will simply assume that the match is OK.
- **Convert Upper case names to mixed** – if set, UK-Elect will convert names that are entirely upper-case into ones with mixed case. (The results of this should, however, be checked carefully as some names, e.g. Scottish ones, may be mis-capitalised.)
- **No. of lines to ignore at start** – the specified number of lines will be ignored.
- **Column number to ignore** – the specified field (spreadsheet column) will be skipped.
- **Include district and ward names at start of each line** – if checked, assumes first fields are district and ward names.
- **File format** – Choose from among the comma-separated file field ordering offered in this section. Where amounts are specified then these are used to create the boundary change constituency transfer totals. In that case then typically each line represents one local council ward, and the amount is the number of electors in that ward. In some cases a ward may be split into several lines, where parts of the ward are associated with different old constituencies. See FileForm.Txt for more information.
- **Include separate sub-ward amount** – an advanced option. See FileForm.Txt for more information.
- **Treat amounts as percentages of old constituency vote totals** – if this is set then the values will be treated as percentages of the source constituency, rather than this one.

The file FileForm.txt (usually found in the same directory as UKElect.Exe) can be consulted for up-to-date details of the file formats currently supported by the import process.

After the boundary change information has been imported, the “Update Estimates for New Constituencies” option can be selected from the Edit / Edit Constituency Information sub-menu. This will use the information to calculate what the results in the new constituencies would have been if they had been fought at the previous election – i.e. the “notional” results.

Update New Constituency Estimates

Use this option to create or update estimated results for constituencies affected by boundary changes. UK-Elect assumes that the currently loaded election is a set of estimated results. that need to be added to or updated

Using boundary change information, UK-Elect estimates what the results would have been at the previous election had they been fought using the new boundaries.

After creation or update these estimates can be edited in the usual way.

Note: Estimates will only be updated for constituencies which match the current Filter Settings. Existing estimates or results will only be overwritten if the relevant check-box below is selected.

Update settings

☒ Overwrite existing estimates
☐ Overwrite existing results
☐ Overwrite existing predictions

Results to base estimates on: December 2019 General Election

Estimates/results to update: 2019 Election Estimates Based on 2023 Boundaries

New Constit ID Range: 2001 To: 2799

Set to 2023 Default ID Ranges

☐ Use latest Boundary Commission electorates (If known), rather than actual electorates at time of election.

Note: Using latest Boundary Commission electorates is likely to make estimates less accurate as a simulation of previous results fought on new boundaries. It may, however, improve the accuracy of forecasting the next election.

As an example, consider the situation where the population of transferred parts of a constituency change significantly between the past election date and the date of the official boundary changes.

☒ Keep redistributed party vote totals consistent with vote totals for source seats at previous election (if possible)

This makes a difference when Boundary Commission electorates differ from those at the last election. It makes estimated vote totals more comparable with votes at the election, but less reflective of the situation at the date of the boundary changes.

Published notional results often do keep the vote totals consistent (especially for minor parties and independents). If this is important uncheck the "Use latest Boundary Commission electorates" check box.

☒ Treat independent / minor party votes as personal - don't split totals below this threshold percentage: 2

If set, and below the threshold percentage, the entire total vote will be allocated to the closest matching successor constituency.

☒ Remove all very low estimated vote totals - less than this number of votes: 3

The “Update Estimates for New Constituencies” dialog includes several configuration options:

- **Overwrite Existing Estimates / Results / Predictions** – controls the type of results overwritten by the new estimates – normally only the “Overwrite Existing Estimates” box is checked.
- **Use Latest Boundary Commission Electorates** – controls which electorates are used for the calculations – either those at the time of the election, or the official Boundary Commission electorates, which usually represent the electorate at a later date.
- **Keep redistributed party vote totals consistent** – adjusts the total votes parties are forecast to win to be more comparable with those they won at the time of the election. Because the change in electorates will vary from constituency to constituency, it doesn’t guarantee that they will be exactly the same.. If this is important unset the “Use Latest Boundary Commission Electorates” check box. Most published calculations use the Boundary Commission electorates but, for minor party vote total purposes, treat them as if they were the electorates at the time of the election. This ensures that a party that won 123 votes in the election is also estimated as winning 123 votes in the notionals.

UK-Elect

Page 84

- **Treat Independent / Minor Party Votes as Personal** – keeps small vote totals together. The threshold percentage for treating the vote totals as “small” can be set. The default is 2%. All parties are considered to be “minor” parties unless the “Treat As Major Party” option is set for that party using the Add / Modify Parties dialog.
- **Remove All Very Low Vote Totals** – can be used to remove trivial estimated vote totals (e.g. zero, one or two votes). The default is less than 3 votes.

Other menu options on the Edit Constituency Information sub-menu are provided to ease the boundary change generation process – e.g. to automatically set the areas associated with new constituencies, which is done by looking at the areas associated with matching old constituencies.

6.17. Exporting / Importing Estimated (Notional) Results

In some cases, where boundaries have changed, UK-Elect already includes estimated (notional) results – e.g. for 2019, which were used for forecasting the 2024 UK General Election. These results can be exported (e.g. as a backup file) using the “Export Estimates” option (found on the Edit menu “Edit Constituency Information” sub-menu) and an alternative set of notional results imported using the “Import Estimates” option (also found on the Edit menu). Please note that the importing will overwrite the existing estimates, so it is wise to save (export) a copy to a different filename first.

It is also possible to import estimates from a spreadsheet comma-separated values (.csv) file using the standard import functionality.

APPENDIX A: FORECASTING METHODS

How UK-Elect works

The target party support levels are usually input as regional (Scotland, Wales, London etc.) or GB/UK opinion poll percentages. (They can however be calculated based on by-election results, or early election night results, or on a specified past election, or some combination of these. The way in which new results can be converted into national or regional party support levels is also highly configurable.)

The difference between the target support levels for the political parties and the support at the previous election is applied to each constituency in turn. The way in which the change in percentage is applied is highly configurable, e.g. it can be applied in a uniform way or a proportional way, or a mix. In addition, behaviour can be tailored to party size, better reflecting differences in behaviour whether the parties' votes are more concentrated or evenly spread across the country.

Each forecast can be done on a regional (up to 6 regions) or national basis, or these can be combined. Where one forecasting area forms part of another (e.g. London forms part of England, England and Wales, GB, and the UK) the smaller area is forecast first, and the forecast results then incorporated into the forecast for the larger area. (Percentages are checked against the targets at every stage, so, for example, the previously forecast London results would affect the calculations for England, and the English results would in turn affect the overall GB calculations.)

Tactical voting and incumbency can be considered if desired and are highly configurable (see the forecasting election results section earlier in this manual). As an example, the incumbency settings can be configured on a party or candidate basis, taking account of whether the incumbent was previously a first-time winner (as some academic studies have suggested that the greatest incumbency advantage is associated with people who won their seats at the preceding election). The tactical voting settings can optionally be configured to use defined party vote-transfer percentages – e.g. to take account of the preferred “2nd choice” parties of voters.

The forecast results can be blended with previous by-election results and constituency opinion polls, which can be adjusted to reduce weighting according to the age of the polls or change in national or regional levels of party support since the date of the by-election or poll fieldwork.

The forecasting methods supported in UK-Elect are:

- Uniform National Swing
- Proportional
- Proportional Loss
- Proportional Loss With Threshold
- UK-Elect Method
- Custom / User-Configurable
- UK-Elect Experimental Method

Uniform National Swing (UNS)

This method assumes the same uniform swing between parties takes place in every constituency - e.g. in every constituency the Tories lose 5% of the total vote and Labour gain 5%.

Advantages

Quick. Easiest method to understand - a 5% swing to Labour from the Conservatives would gain the party all those seats where it is less than 10% behind the Tories (the Tory vote would be assumed to fall by 5% and the Labour vote rise by 5%). It is commonly used by the media and has a generally good reputation among most psephologists and political scientists because analysis of past elections has shown that the national swing often *is* surprisingly uniform across a range of different constituency types and *almost* irrespective of the starting percentages. In addition, it can be relatively easily tweaked to improve accuracy provided that a good understanding exists of voter behaviour in particular types of constituencies, although it may be noted that the evidence of past elections and their forecasts is that such tweaks can sometimes be counterproductive. They are usually based on behaviour at the preceding elections – which can change.

Disadvantages

If used in its pure “uniform” form it is likely to be less accurate than any method that *correctly* makes allowances for human behaviour. Swings are rarely *completely* uniform even within a region. In addition, it is extremely poor at forecasting the votes in cases where a party vote is very low or high (if a party has only 4% of the vote in a constituency, it *can't* lose 5%). It is *extremely* difficult to explain a forecast where one or more of the parties are predicted to have a **negative** number of votes in some constituencies!

Summary

Uniform Swing is a reasonable choice, which is rarely *very* inaccurate, and is traditionally a good safe choice whenever it is important that predictions agree with those made by most of the media (although the proportional-loss based combined method was also commonly used for the 2010 election – see below). As with other methods it can be modified to try to better take account of voter behaviour – although not without risk. It is still probably the most commonly used technique, both for pre-election forecasting and also as a component of election-night exit-poll based forecasting.

Proportional

A common alternative to Uniform National Swing that exists in several variations, this method is just as easy to calculate. It simply uses the ratio between a party's current opinion poll percentages and its percentages at the previous election.

For example, if PartyX got 20% last time, and is currently at 50% in the polls, then the multiplier will be $50/20 = 2.5$. This multiplier is then applied evenly to PartyX's votes in all constituencies. If the resulting vote total is too large or too small then a further multiplication is applied to all the party's votes in the constituency to achieve the correct total number of votes. If, as a result of this first pass the national vote totals do not match the target vote percentages then the ratios are adjusted, and a further forecast made. This process is repeated until the vote target is achieved (or the maximum number of iterations reached). It is also possible to modify this system to take account of different characteristics of seats and use different ratios for each of these characteristics.

Advantages

Proved to be more accurate than UNS when tried on *some* past elections. Doesn't produce negative vote totals. Lacks some of the disadvantages of the other methods. As with other proportional systems, it can be modified to try to protect against some of the disadvantages discussed below – e.g. to prevent wholesale predicted loss of Liberal Democrat seats whenever their vote declines significantly nationally! This is usually done by introducing some protective mechanism that applies to seats where their vote is already strong – e.g. some sort of threshold above which their votes are protected, so that most of the predicted vote losses come from seats where they are weak. (This, in turn, sometimes leads however to extremely low – almost zero - vote totals being forecast in their weaker seats, something that in reality more commonly happens at by-elections than General Elections).

Disadvantages

It is likely to be less accurate than any method that *correctly* makes allowances for human behaviour. Swings are rarely in the same ratio in every seat even within a region. When wrong, it can be *far* more inaccurate than the Uniform National Swing method. Many methods based on this system proved to be significantly less accurate than the UNS method at forecasting the 2010 General Election. As with other proportional systems, it also tends to exaggerate losses where a party declines significantly nationwide – for example, when the Liberal Democrat vote declines significantly it quite often forecasts zero seats for them – even though past experience of the Liberal Democrat and Liberal voting history shows that many Liberal / Liberal Democrat held seats are very resilient to even very sharp national vote declines.

Summary

Rarely used nowadays because the Proportional Loss and Proportional Loss With Threshold methods add improvements to it, but still can be a worthwhile method - it quite often produces slightly better results than UNS, but don't take it too seriously - when wrong, it can be *very* wrong – and generally it *was* wrong in 2010.

Proportional Loss

An alternative to UNS that gained noticeably in popularity before the 2010 General Election, this proportional loss based method combines aspects of the other two. In each constituency it simply uses the ratio between a party's current opinion poll percentages and its percentages at the previous election to calculate votes **lost** and then re-adds those lost votes to the parties which gain votes nationally in proportion to their uniform national swing percentages.

For example, if PartyX got 50% last time, and is currently at 25% in the polls, then the multiplier will be $25/50 = 0.5$. This multiplier is then applied evenly to PartyX's votes in all constituencies. In each constituency, the votes lost are then added to those parties which gained votes nationally in proportion to their national percentage gain. The result is that the total number of votes stays the same as at the previous election in every constituency, and that unlike uniform swing, negative vote totals are not possible.

Advantages

Proved to be slightly more accurate than UNS when tried on *some* past elections. Doesn't produce negative vote totals. As with other proportional system, it can be modified to try to protect against some of the disadvantages discussed below and in the "Proportional" section. It can also produce a more realistic result when there is a significant transfer of votes directly from one party to another, e.g. from an existing party to a newly created one, and thus may be particularly suitable for the next UK election.

Disadvantages

It is likely to be less accurate than any method that *correctly* makes allowances for human behaviour. Assumes parties can only gain votes in any seat if others lose them nationally – as an example, if there were only 3 parties and PartyX gained 20% nationally, PartyY stayed the same, and PartyZ lost 20%, then the forecast votes for PartyX and PartyY would remain unchanged in every seat where PartyZ didn't stand (and would remain substantially the same wherever it had a low total). In other words, it doesn't cope well with direct swings between the gaining parties. As with other proportional systems, in its pure form it also tends to exaggerate losses where a party declines significantly nationwide – for example, when the Liberal Democrat vote declines it quite often forecasts zero seats for them

Summary

A worthwhile method - it can sometimes produce slightly better results than Uniform National Swing, although it may also be a lot worse. It may also be useful to replicate some media and online forecasts. Be aware that in its un-modified form it may occasionally produce unrealistic results in situations where there is a major change in votes for a nationally significant party. That said, it can cope well with direct vote support transfers to newly created parties.

Proportional Loss With Threshold

This variation of Proportional Loss (sometimes called the "Strong Transition Model") differs only in that a threshold can be set (e.g. 20%) which divides voters into "strong" and "weak" categories. Below the threshold voters are assumed to be "weak" voters, more likely to switch parties. Accordingly, when a party's vote declines it is assumed that the first losses will come from this portion of its votes (i.e. more from voters in seats where it is weak), and "weak" and "strong" ratios are calculated separately (with the "strong" ratio usually being 1.0 unless all the "weak" ratio is calculated as 0.0 – i.e. all the weak voters are assumed to have defected).

Advantages

Compared to Proportional Loss it much better reflects the situation when the votes for a party such as the Liberal Democrats (and the Liberals in the past) decline – despite the reduction in votes they tend to retain many of their seats. It was one of the better performing methods in 2010.

Disadvantages

Although better than Proportional Loss at coping with significant vote declines, it otherwise shares the same disadvantages as other proportional methods.

Summary

A worthwhile method that does seem to be an improvement on “pure” Proportional Loss - it can sometimes produce slightly better results than Uniform National Swing, although it may also be a lot worse. May also be useful to replicate some media and online forecasts.

UK-Elect Method

Note: Different versions of UK-Elect may have different methods associated with them – e.g. the “UK-Elect 15 Method” if and when it exists, may be different from the method described here.

The UK-Elect method is based primarily on Proportional Loss With Threshold, with some blending with Uniform National Swing functionality. It is highly recommended that this method be used with separate regional percentages (at least for Scotland) in addition to national percentages, rather than as a simple national percentage-based forecast. The default settings associated with this method (including the threshold used) have been designed to be particularly suitable for use forecasting the next UK General Election.

Advantages

Mostly the same as the Proportional Loss With Threshold method would have if automatically configured for the next election using the preferred UK-Elect defaults. Compared to most methods (especially “pure” proportional systems) it sometimes better reflects the situation when the votes for a party such as the Liberal Democrats (and the Liberals in the past) decline – the fact that despite the reduction in votes they sometimes (not always) tend to retain more of their seats than might be expected.

Disadvantages

Most of the same disadvantages as the Proportional Loss method, but with some edges softened. Also, if detailed constituency polls prove to have been misleading regarding the real voting pattern, then adjustments made after General Election 2024 may prove counterproductive.

Summary

Really an easy-to-use variation of Proportional Loss With Threshold (intended for use with a combination of national and regional percentages) with additional options automatically set to what are hoped to be the appropriate settings for forecasting the next General Election.

Custom / User - Configurable Method

This isn't a single method – it is actually all of them! It allows access to the detailed settings that can be used to define the other forecasting methods, or to create a new one. The configuration dialog for this method provides buttons with the names of the main methods on them, which when pressed set the advanced options to the appropriate state for those methods. Making a custom forecast with the advanced options set appropriately is identical to forecasting by selecting that method from the main forecasting configuration dialog. In addition to the previously mentioned methods there is a UK-Elect “Experimental” method that can be set on the Custom dialog – it is discussed below.

Advantages

Fully configurable – create your own method and test it against past elections by setting the forecasting base election and forecasting target percentages source options appropriately.

Disadvantages

It is possible to create some very dubious methods and achieve some very strange results!

Summary

Allows users to see how the other methods are configured, and to create new ones – one of which might be the best method for forecasting the next election!

UK-Elect Experimental Method

This is a set of Custom method settings, accessed from the Custom forecast method dialog, that is basically the method the developers of UK-Elect are currently experimenting with. It may evolve to become a new method in future, or it may be completely replaced. For example, the experimental method used from v9.3 onwards was different from that used in v9.2.

Advantages

It is used to try out possible improvements, and they may turn out to be real improvements that do improve the accuracy of forecasts.

Disadvantages

Because it is “experimental” confidence in any forecasts produced by it is lower than usual.

Summary

By definition an **experimental** method, with the advantages and disadvantages that implies. It is likely to evolve (or even be completely replaced) and therefore produce different results with different versions of UK-Elect.

Other Methods: Multi-level Regression and Post-Stratification (MRP)

As well as the above techniques supported by UK-Elect, other forecasting methods do exist which have their own advantages and disadvantages. One of the most common is MRP (Multi-level Regression and Post-Stratification). MRP is a technique that assumes similar voters in different constituencies vote in a similar way. (It may be worth noting, as a slight oversimplification, that this is not actually always the case unless they are effectively subdivided by category again and again, until ending up with, for example, "formerly Conservative voting, working class, white, elderly, voters living in an ex-council house in a North-East England constituency where that constituency is not a Conservative marginal." Of course, a standard opinion poll sample of about 1000 voters may contain very few people in any such category, so significant changes of vote may not be easy to detect.) MRP models are usually fine-tuned to predict past elections very accurately but are highly reliant on excellent and comprehensive data sources on a constituency-by-constituency basis combined with detailed and large-scale polling data. Changes to boundaries can also be as much of a challenge to MRP methods as to other methods. The record of MRP models in forecasting elections ahead of time when based on standard opinion polls is very mixed, and even when good input data is available different MRP models can produce forecasts as widely varied as other forecasting methods. Finally, it may be noted that many MRP models produced quite poor results when forecasting the 2024 UK General Election.

APPENDIX B: ELECTORAL SYSTEMS

Electoral Systems Supported by UK-Elect

UK-Elect supports seven electoral systems – First Past The Post, the Additional Member System (AMS), the Party List system, the Alternative Vote system, the Two Round system, the Supplementary Vote system and the Single Transferable Vote (STV) system. In addition, it is possible to combine forecasting using the Alternative Vote method for constituencies, and the Additional Member System for regional “top-up” seats.

First Past The Post

This method is the familiar system used for almost all British elections. Quite simply, the person who gets the most votes in each constituency is elected.

Additional Member System

This method was chosen for the 1999 Scottish Parliament and Welsh Assembly elections, and the 2000 London Assembly. Under AMS each voter has two votes – one for an individual which is used to elect a constituency representative, and one for a party which is used to elect regional “top up” representatives according to a formula which is designed to make the overall result more proportional.

In both Scotland and Wales the existing parliamentary boundaries were used for the constituency element of this system – the only exception is that the Orkney and Shetland constituency was separated into its two parts – and the European constituency boundaries were used for the regional element. In Scotland there were 7 top up seats for each of the 8 European constituencies, but in Wales there were only 4 for each of the 5 European constituencies. The net result of this is that Scotland has a more proportional system than Wales.

The variant of AMS used as the formula to determine how many regional seats were allocated to the parties was the d’Hondt method (one which some analysts suggests tends to favour larger parties). This method is fully supported by UK-Elect.

Under the d’Hondt formula the first AMS seat is allocated by dividing the number of votes cast for each party in a region by the total number of constituency seats won by that party in that region plus one. The party with the highest number of votes per seat then wins the first AMS seat. For subsequent AMS seats the process is the same, except that the number of AMS seats won so far is added to the constituency totals. UK-Elect shows the order in which the seats were allocated, and the calculated values at the time of seat allocation (or in the case of unsuccessful parties, at the time when the final AMS seat was allocated).

In London the same system was used except that there was only one top-up regional constituency covering the whole area. A threshold of 5% was set to ensure that parties falling below that level would not be allocated a top-up seat (as would indeed have happened without the threshold).

Party List

This method was chosen for the 1999 European Parliament elections. This can be thought of as “AMS without the constituencies” – each voter only has one vote, which is used on a regional basis, with seats allocated using the same d’Hondt method used for AMS.

Alternative Vote

Also known as Ranked Choice Voting (RCV), this method has been used in Australia for the House of Representatives. It is a preferential voting system, i.e. one where voters rank candidates in preferential order (1,2,3...). Any candidate that wins an outright majority (more than 50%) of first preference votes is elected; if no candidate achieves a majority, then the votes of the last placed candidate are redistributed according to their voters second preferences. This process continues, with third and subsequent preferences being taken into account, if necessary, until a candidate achieves an outright majority.

Two Round

This method differs from the First Past The Post system only in that if no candidate that wins an outright majority in the first round, then a second round is held. The rules for which candidates can stand in the second round vary from country to country. In France it typically is the top two candidates; a minimum vote percentage (e.g.15%) may also apply. Whichever candidate gets the most votes in the second round wins, even if an outright majority is not achieved.

Single Transferable Vote

This method is a multi-member system where voters rank their preferred candidates in order (1, 2, 3 etc.). Surplus votes, and votes from eliminated candidates, are redistributed in accordance with voter preferences. STV is used for Northern Ireland Assembly elections, and has been used for Scottish local elections from 2007 onwards. One factor to note with STV is that the number of candidates for a party in a constituency can affect the result significantly even if the overall vote total for the party remains the same – for example, if a party underestimates its potential vote it may only field one candidate in a constituency where, if second and subsequent preferences are taken into account, it could win two seats. Conversely, fielding too many candidates may split its vote and result in too few seats being won. The “Optimize number of candidates for each party” option on the forecasting configuration dialog can be used to automatically adjust the number of candidates. STV is also strongly affected by vote transfer preferences (see Section 4.9).

Supplementary Vote

This method is a single-member system where voters have two votes – a first preference and a second preference. Any candidate that receives an absolute majority of first preference votes is deemed elected. If no candidate receives a majority, then all candidates other than the first two are eliminated, and the second preference votes from the eliminated candidates, are redistributed in accordance with voter preferences, with any second preference votes for candidates other than the top two being discarded. Whichever candidate then gets the highest vote total wins, even if an outright majority is not achieved. SV is used for mayoral elections in England – e.g. to elect the Mayor of London.

Alternative Vote + AMS

This method combines the Alternative Vote and AMS systems and is sometimes called “AV+”. A form of this was proposed by the Jenkins Commission for the House of Commons: that constituency elections would use AV, and around 15 to 20% of the total seats would be “top-up” AMS seats elected from 80 local areas, primarily based on counties and cities.

Conversions Between Electoral Systems

UK-Elect can convert between electoral systems when forecasting. Regional areas must be defined in the election file to do a full conversion between constituency-only systems and the AMS or Party. The 2001 election provides an example of this; to facilitate the election type conversions regional areas have been added into the file (the 1999 UK European Parliament regions have been used). In circumstances where UK-Elect requires regional areas but none are found it can optionally automatically generate these. *(Note: it is possible to change the regional areas by editing the constituency definition (*.Def) file directly – see Appendix C.)*

To forecast accurately using the STV, Alternative Vote, Supplementary Vote and Two Round systems, it is also important to set voters second and subsequent party preferences – these are configured using the Vote Transfer Preferences which form part of the overall party configuration, and which can be accessed via the ‘Modify Parties’ option on the Edit menu.

APPENDIX C: FILE FORMATS

Note: In order to better understand the UK-Elect file formats it makes sense to update the data files being examined to the most recent version. This can be done by loading a results file into UK-Elect and then using the “Save All” option on the File menu. This will save all the files associated with that election in the format used by the latest version, and in many cases (e.g. for map index files) will add comments in the first few lines of each file providing information about the file format, which may provide additional information beyond that mentioned in this section.

There are several plain ASCII text files that can be edited by the user, although it is essential that time is taken to understand the file format first.

Several must be present:

- *.ELN - main election files
- *.DEF - definition of constituencies
- *.PRV (or .ELR) - Previous results
- *.OLD (or .OLn or .Oyy, where n is a number and yy is a year) - older results

The others are optional, or created by UK-Elect when necessary:

- *.BYE - by-elections since last general election
- *.NEW - latest national results (used on election-night)
- *.PAR – details of political parties, and groups of parties
- *.CTY – county/regional definitions - automatically generated if not already present.
- *.CAN – candidate names for forthcoming elections.
- *.CIN – change index. This is used when significant boundary changes occur, to calculate estimates files based on existing constituencies, or to map old onto new constituencies.
- *.EST – estimates file. This is a set of estimated (as opposed to actual) results, usually used to represent what a result might have been if fought using newer electoral boundaries. The format is normally the same as .ELR, .PRV and .OLD files.
- *.POL – Constituency opinion poll data (same format as by-elections)
- *.PO2 – National / regional opinion poll data. GeneralElection2010.po2 provides an example of this type of file.

The file format of results files (*.NEW, PRV, .ELR, .BYE, .POL and .OLD), definition files (.DEF), candidates files (*.CAN) and the county and regional definition files (.CTY) are reasonably straightforward - as can be seen when they are printed and examined. Direct editing is not normally necessary or recommended, but may be useful in a few cases, e.g. if changing the regional areas used for some electoral systems.

Consult FILEFORM.TXT for more details of all UK-Elect file formats. Also, try using the “Save All” option from within UK-Elect and then reading the comments written into the files.

All files are automatically generated when the “New Election” option is chosen. Most are also automatically updated when the relevant editing operations are performed from within UK-Elect.

Please note that files should ALWAYS be backed up before any editing is done!