Mendip Data Systems

UK Postal Address Finder (UKPAF)



User Guide

Version 3.46

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UK Postal Address Finder (Version 3.46)

UK Postal Address Finder (UKPAF) is an Access database application which has been created to import **postal address** data and **postcode maps** from online sources directly into **Access**

There are three versions of the application. The main features in each version are shown below:

Feature	Standard	Professional	Tablet
Full list of addresses from postcodes	✓	✓	✓
Postcode search history	✓	✓	✓
Postcode map	✓	✓	✓
Additional postcode information	✓	✓	×
Location finder	✓	✓	✓
Postcodes from geolocation	✓	✓	✓
Nearby Places Search	✓	✓	✓
Full address finder from partial address	✓	✓	✓
Address from UDPRN	×	✓	✓
Route Planner	×	✓	✓
Signature Capture	×	✓	✓
Postcode Info	✓	✓	√

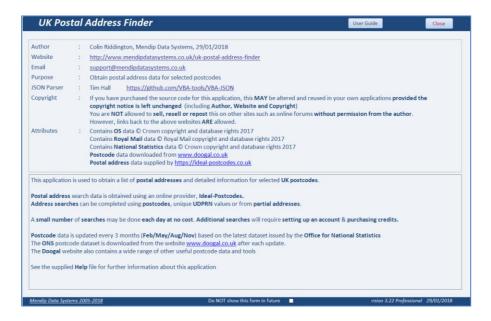
1. Using the Application

The **UK Postal Address Finder** application is run using a desktop shortcut When the application starts, a **splash form** will appear briefly. This will perform various checks then close automatically





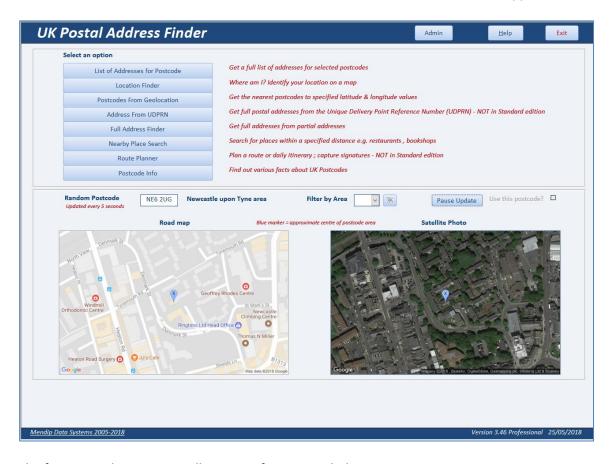
This may be followed by a start form (unless this was disabled by program administrators)



Normally the main form appears after the splash form closes

2. Main form

This is used to access the main features of the UK Postal Address Finder (UKPAF) application



The form provides access to all program features including:

- Postal address search & map
- Location finder find a place by postcode area, district & sector
- Postcodes from Geolocation get the nearest postcodes to the current (or other) location
- Nearby Place Search find places of specified types within a set radius
- Postcode search history
- Address Finder full addresses from partial addresses
- Detailed Postcode Info (Standard / Professional versions only)
- Address from UDPRN (Professional / Tablet versions only)
- Daily itinerary (Professional / Tablet versions only)
- Route Planner (Professional / Tablet versions only)
- Signature capture (Professional / Tablet versions only)
- Postcode Info facts & information about UK postcodes together with summary reports
- Help UKPAF User Guide
- Admin Menu for program admin users only

The form also shows a map and satellite photograph for a randomly selected postcode.

These are both updated every 5 seconds.

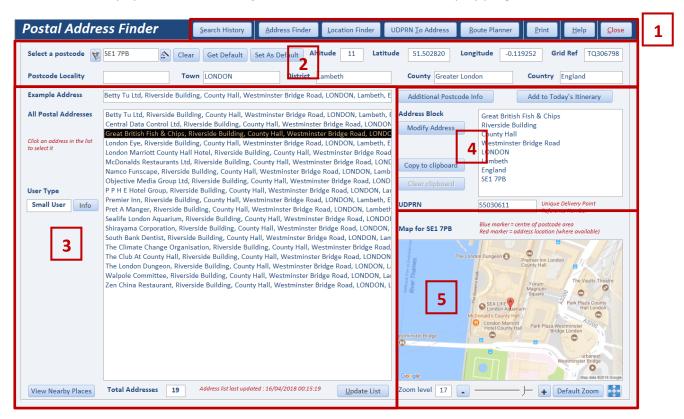
Click the button to pause the update at any time.

The displayed postcode can be selected for use in postal address & nearby place searches

3. Postcode Address Search

This is used to obtain a list of postal addresses and a map for selected postcodes

The form normally opens to the **default postcode** (this will have been setup by program administrators)

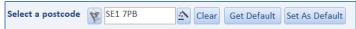


The main form contains a lot of information and it may be easier to consider this in 5 sections:

- 1. Links to other items (described later)
- 2. Postcode selection and summary information
- 3. List of postal addresses for the selected postcode
- 4. Address block and various tools for a selected address
- 5. Map for the selected postcode with zoom controls and full screen mode

New postcodes can be entered in three different ways:

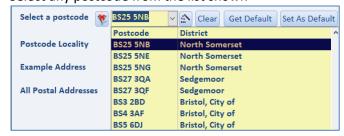
a) If you know the postcode it can be typed directly into the postcode textbox at the top left



It will automatically be changed to upper case and a space added as is standard for UK postcodes

b) Click the small **filter** button to the left of the postcode box. The display will change to show a yellow combo box with all postcodes previously used with the application.

Select any postcode from the list shown



Click the filter button again to return to the standard textbox entry

c) Click the small **Wizard** button to the right of the postcode box.

This will open a new **Postcode Builder** form – useful if you are unsure which postcode you require

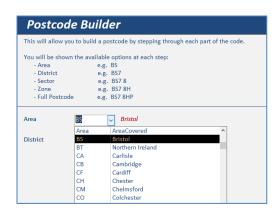
Postcode Builder						
This will allow you to b	This will allow you to build a postcode by stepping through each part of the code.					
- Area - District - Sector - Zone	available options at each step: e.g. BS e.g. BS7 e.g. BS78 e.g. BS78 H e.g. BS78H					
Click 'OK' to start building a postcode Click the 'Cancel' button at any time to return to the default postcode search						
OK Cancel						

This tool allows you to build a postcode from its components: area, district, sector and zone

- Area, District & Sector are official postcode terminology.
- **Zone** is an extra descriptor used by this application

For more information about postcodes, see Appendix A

Click the **OK** button to start using the postcode builder A dropdown box appears with a list of **postcode areas**. Select an **area** from the list



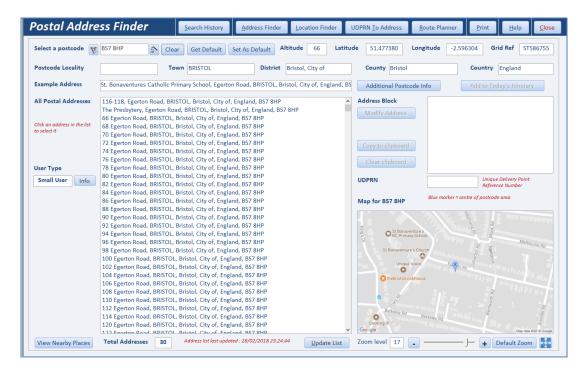
Another dropdown list then appears with a list of **districts** for the selected postcode area. Further dropdown lists appear in turn until you have selected a full postcode The lists will only include valid postcodes that are currently in use



Once you have selected a postcode, click the **Confirm** button.

You will then be returned to the postal address form.

A full list of addresses for the selected postcode will be displayed together with a map. A **blue** marker indicates the **postcode centre**



NOTE:

If the address has previously been used, the addresses will be retrieved from the database itself.

Otherwise, an **online search** is done and the addresses are downloaded and saved **Each online search uses 1 credit and costs about 3p (£0.03)**

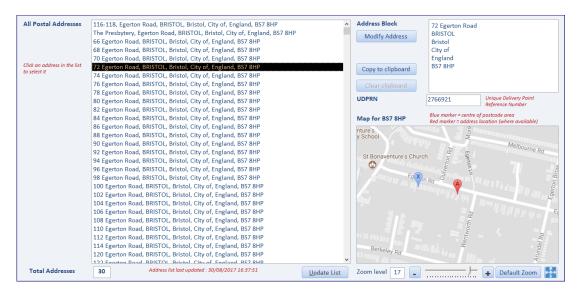
If the list appears to be incomplete, click the **Update List** button to run the online search again

Geolocation data is displayed for the postcode: latitude / longitude / OS Grid Reference / Altitude Other location data such as town / county etc are also shown. Some items may be blank

NOTE: Less data is available for postcodes in the Isle of Man (IM), Guernsey (GY) and Jersey (JE)

Select an address from the list on the left

The map will be updated and centred on the selected address - shown with a red marker.



You can use the **zoom in / out** controls or the **slider** to adjust the level of detail shown on the map. The **default zoom** level is 17 with a range = 1 (whole Earth) to 20 (rooftop).

The small button with 4 blue arrows is used to open a full screen online 'live' map

The full address is shown as an address block which can be used on envelopes or in other programs.

Clicking the **Modify Address** button adds an extra line at the top of the address e.g. for entering the householder's name

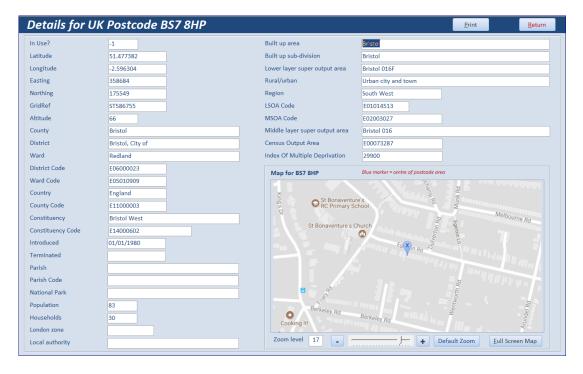
Click the Copy to Clipboard button so the address can be pasted into another application

The **UDPRN** (**Unique Delivery Point Reference Number**) for the address is also shown. As the name indicates, this is used to deliver items to the correct postal address **Double click** the **UDPRN** to add this to the address block. Double click again to remove it

If you have the **Professional or Tablet** editions of the program, you can click the **Add to Today's Itinerary** button to select an address as part of the **Route Planner** feature - see <u>section 9</u>
This feature is **NOT** available in the **Standard** edition

The View Nearby Places search feature is described in section 6

Click the Additional Postcode Info button for many other items of information for the selected postcode

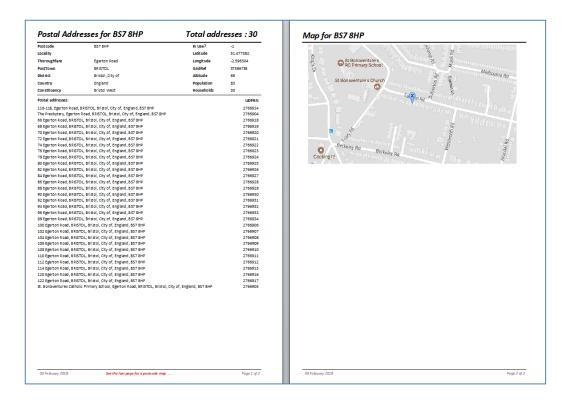


NOTE: the Additional Postcode Info feature is NOT available in the Tablet edition for reasons of space

Use the **Clear** button to empty the Postcode box

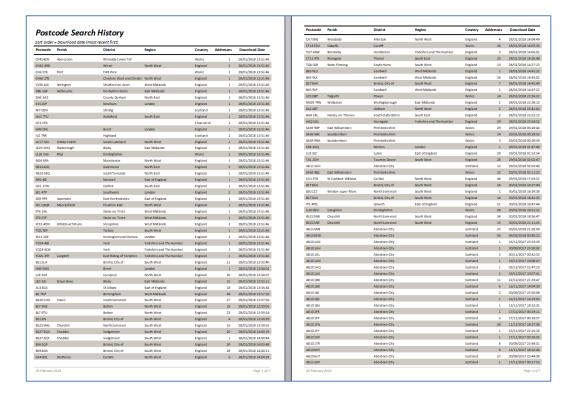
Click the **Get Default** button to enter the **default address** as set by program administrators The **Set Default** button is **only** available for program administrators

The **Print** button opens a report showing the addresses list and the postcode map



4. Search History

The **Search History** button opens a report listing all postcodes already used by the application. Postal addresses for each of these postcodes have been saved in the database for future use.



5. Location Finder

The Location Finder can be used to pinpoint an exact location on a map and determine its postcode

NOTE: For a street location, use the **Address Finder** feature instead – see section 7

Enter a place name or postcode area / district in the search box e.g. Harrow

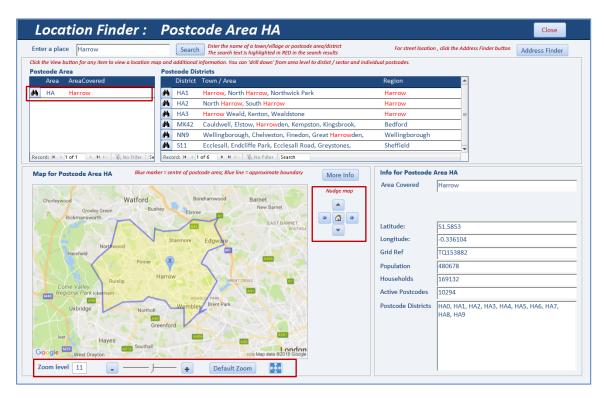
All postcode areas and districts matching the search will be displayed with the search item highlighted in RED



Click the **View** button next to any item to view a static map and details about the item

For example, the postcode area HA has been selected below

A blue line marks the area boundary and a blue marker indicates the centre of the postcode area



The zoom level will be automatically updated depending on the size of the postcode area

Use the **zoom tools** to increase / reduce the map magnification.

A full screen 'live' map can also be viewed (but it will not include the boundary line)

Use the **nudge tools** to move the map by small increments and the **home button** to restore the original map

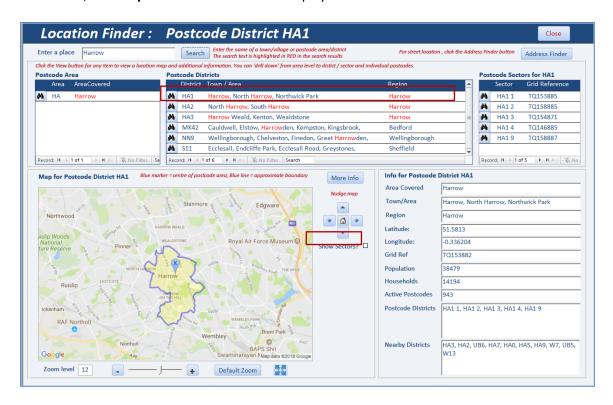
You can drill down to postcode district level by clicking one of the View buttons in the postcode district list

For example, **postcode district** HA1 has been selected below.

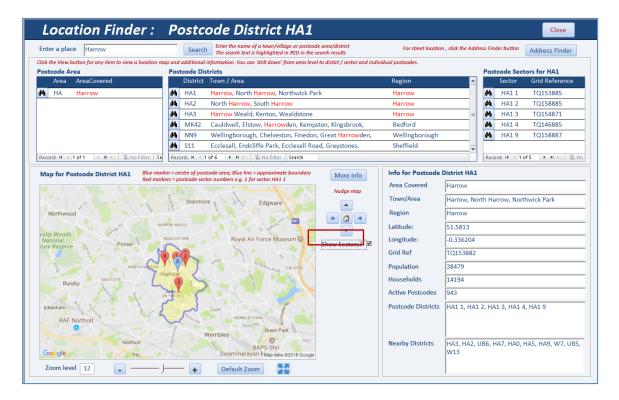
The map and information are both updated for the selected postcode district.

The zoom level will be automatically updated depending on the size of the district

In addition, a list of postcode sectors is now displayed for that district

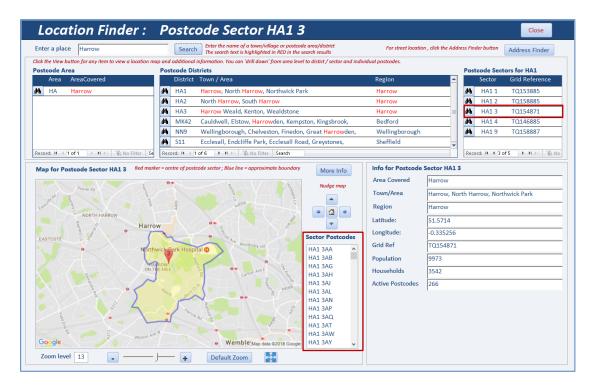


Tick the Show Sectors checkbox to show the approximate centre of each sector (RED markers)



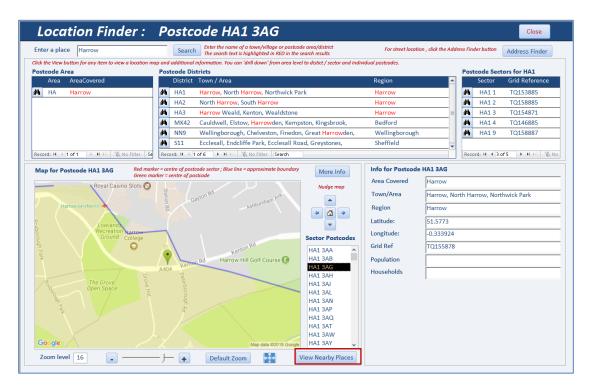
You can now select any of the sectors displayed in the right hand list to view a sector map For example **postcode sector** HA1 3

Once again the map and information will be updated for that sector In addition a list of all postcodes in that sector will be displayed



The final level of detail is available by selecting any postcode from the list The postcode centre is shown with a GREEN marker

NOTE: boundary lines for individual postcodes are not currently available



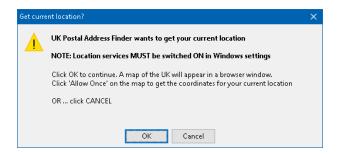
Click the **View Nearby Places** button to view places in the near vicinity of the selected postcode (see <u>Section 7</u>)

6. Postcodes from Geolocation

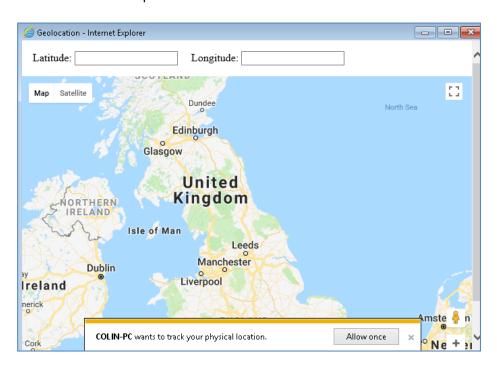
This is used to obtain your current geographical location on a map and determine the nearest postcodes



The easiest way to obtain the current geolocation data is to click the 'Get Current Location' button A message will appear:



Click **OK** to load a map of the UK in a browser window



Click the **Allow Once** button within 3 seconds to grant permission for your current location to be located The **latitude** and **longitude** data will be obtained and saved on the main form

NOTE:

- 1. Location services MUST be ENABLED in Windows settings to use this feature (Windows 7 or later)
- 2. The result will only be accurate if your PC contains a **geo-sensor**. These are found in all tablets, most laptops and some desktop PCs
 - If no geo-sensor is available, the location will be estimated based on mobile phone, wi-fi or ISP data In such cases, the accuracy of the quoted location may be poor.
- 3. A bug in Windows 10 version 1803 update has temporarily 'broken' the geolocation service This has been reported to Microsoft and a fix will follow at some point

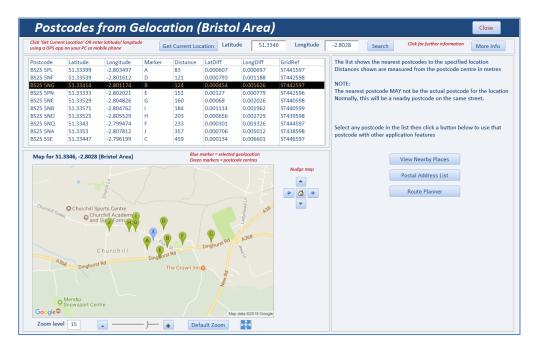
Alternatively, do one of the following to obtain your current geolocation data:

- i) Open Google maps to your current location
- ii) Use GPS data from a mobile phone or other device with a geo-sensor
- iii) Use a Windows app such as Sensor List or Geolocator (free from the Windows Store)
- iv) Take a photo using your PC webcam then use the GPS data from the photo properties

Enter the latitude & longitude for your current (or another) location and click the Search button

A database search will locate the closest postcodes and show these on a map. Each postcode location is displayed with a GREEN marker

As over 2.6 million postcodes need to be searched, this process will take a few seconds



Select a postcode from the list to use that postcode with other application features:

- View Nearby Places see section 7
- Postal Address List see <u>section 3</u>
- Route Planner see <u>section 9</u>

7. Nearby Place Search

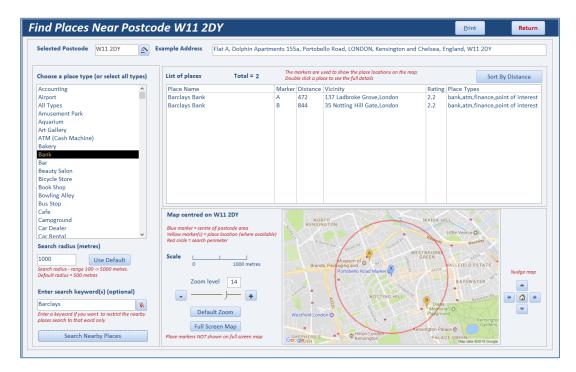
This feature is used to view a list of places of a specified type within a set radius of a selected postcode. The postcode may already have been entered depending on how you accessed this form.

Alternatively, enter a postcode using the wizard button

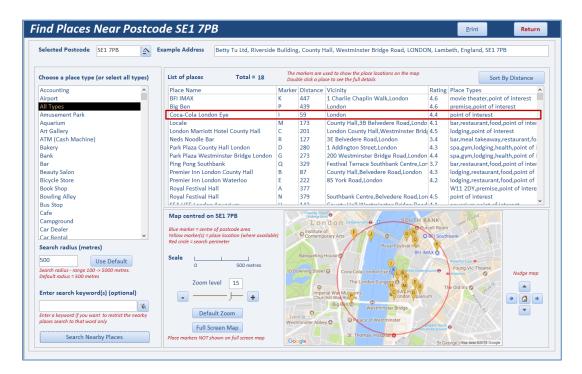
Next select:

- a place type from the list (or use the default 'All Types')
- the required **search radius** from the postcode centre (default = 500 metres)
- one or more search keywords (optional)

A list of up to 20 places nearby will be displayed together with a map centred on the postcode. The map includes yellow markers for each of the nearby places listed



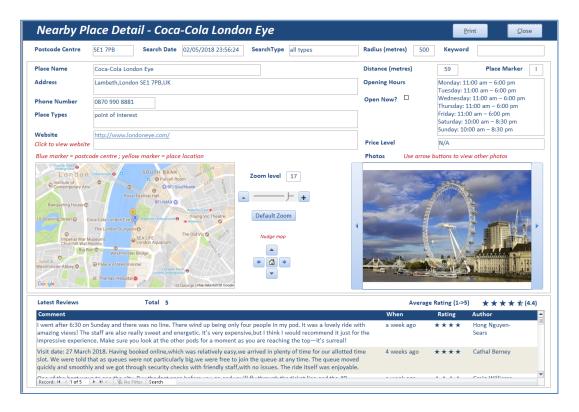
The map scale will be automatically updated depending on the search radius (range 100 -> 5000m)



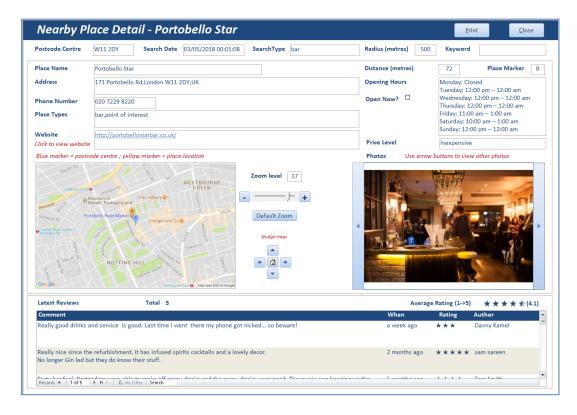
Double click any place in the list to view further details about the selected place

The place detail form opens. Depending on the place selected, details shown may include:

- full address, telephone, website, one or more photographs
- opening hours and price level, up to 5 recent online reviews with ratings (1-5 scale)



Use the arrow buttons to view additional photographs for the selected place



8. Address Finder

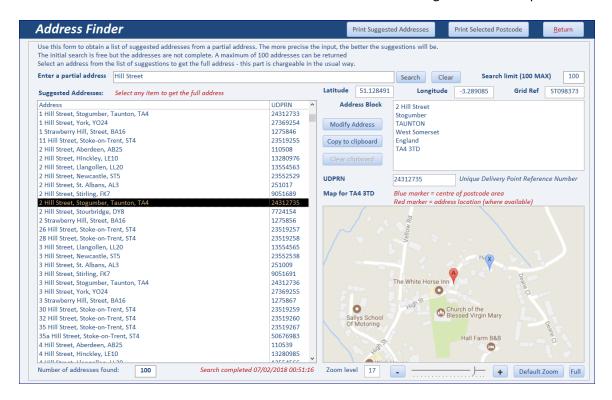
The **Address Finder** feature is used to obtain a list of suggested addresses from a partial address. Up to 100 results can be obtained. The initial search suggestions are free.

Results include the street and postcode district, together with the UDPRN

Enter a partial address e.g. street and town or house number and street then click **Search** The more precise the input, the better the suggestions will be.

In the example shown below, the partial address **Hill Street** was entered The suggestions also include Strawberry Hill in the town of Street

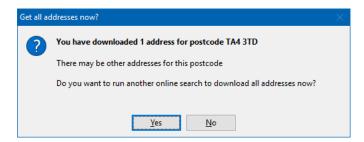
A more focused search such as 26 Hill Street or Hill Street ST4 would give fewer false positive results



The list of suggested addresses can be printed as a report

Select any address in the list to get the full address block and an online map Doing this uses **1 credit**.

Click **Return** to return to the main address form. A message similar to this will then be displayed



If you select **Yes**, another online search will be run to obtain all addresses for this postcode. As before, doing this will require **1 credit**

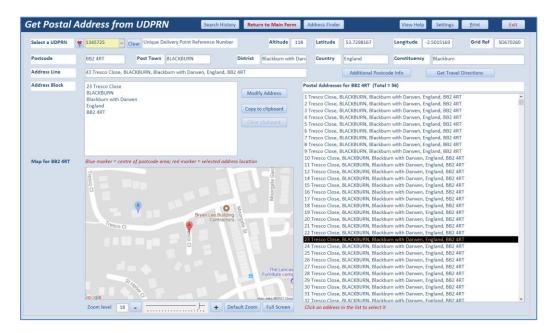
9. UDPRN to Address

Available in Professional / Tablet editions ONLY

This feature is used to get the full address from the Unique Delivery Point Reference Number (UDPRN)

Type the **UDPRN** into the textbox or click the small **filter** button to select from **UDPRN** values which were obtained from previous searches

An online search will be run and all postal addresses found for the related postcode for this UDPRN



The controls on this form are very similar to those on the Main and Address Finder forms

10. Route Planner

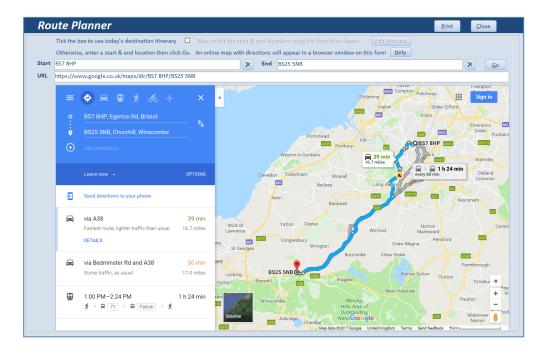
Available in Professional / Tablet editions ONLY

This form is used to get travel directions between any two selected locations You can use any of the following for the start and end locations:

- Postcode
- Full or partial address
- Co-ordinates (latitude & longitude)

In the example shown below, two postcodes have been entered.

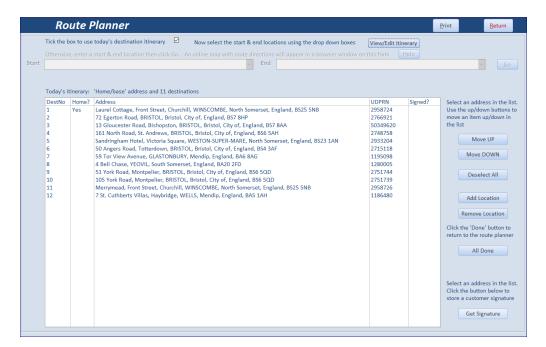
When the **Go** button is clicked, an online route map and directions are displayed (this is free)



In addition, you can use any addresses previously added to the **itinerary** for the day. To do so, click the checkbox at the top of the form

Then click the View/Edit Itinerary button

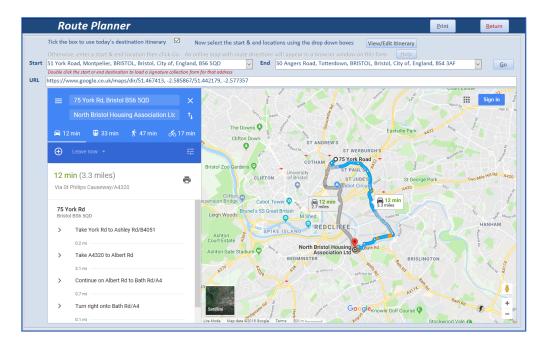
The list of addresses in the daily itinerary is then displayed.



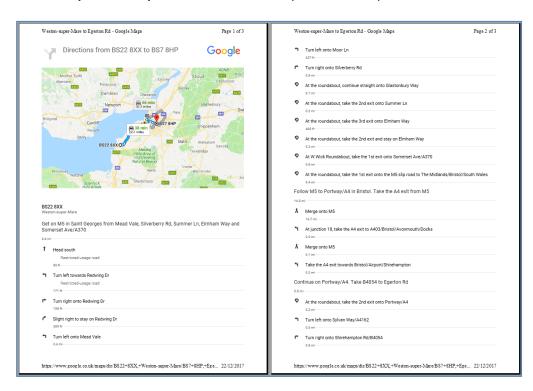
The order can be modified using the buttons on the right Click the **All Done** button when the list order is correct

Next select one of the addresses from the dropdown **Start** box The next address in the list is automatically entered in the **End** box (though this can be changed)

As before, an online route map and directions are then displayed



The route planner map and directions can be printed as a report



11. Signature Capture

Available in Professional / Tablet editions ONLY

This feature is for use when using the tablet edition for delivery systems based on the daily itinerary

Double-click the Start or End location on the Route Planner form



The **Customer Signature** form appears with the address already entered. Enter the name of the person providing the signature

The customer can enter their signature using a:

- finger or stylus on a touchscreen
- trackpad or mouse on other systems



The date and time are added automatically when the Save button is clicked

The signature is saved as a **GIF** image file in the **Signatures** folder. It can be viewed in any Images application including **Paint**

The file name will be similar to this example: **Sig_13_Fred Smith_20171208_013956.gif**The file name includes the:

- signature ID value (13)
- customer name (Fred Smith)
- · date and time in the format yyyymmdd hhnnss

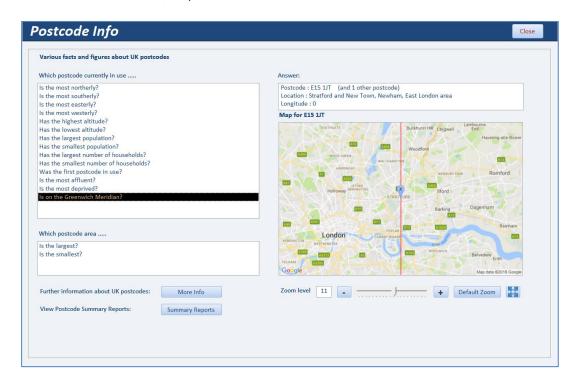
Click Close to return to the Route Planner form

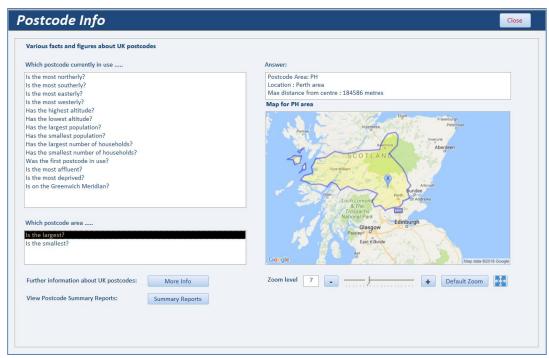
12. Postcode Info

This feature is used to find out various facts and figures about UK postcodes

For example, which UK postcode:

- is the furthest north/south/west/east
- has the highest/lowest altitude
- largest / smallest population and number of households
- is the most affluent / deprived etc



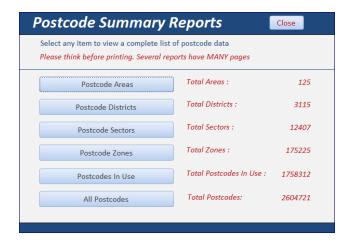


The form also contains links to:

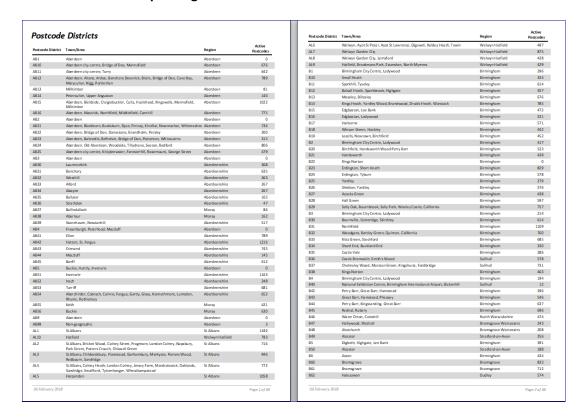
- additional information about the UK postcode system (identical to <u>Appendix A</u>)
- postcode summary reports (see <u>Section 12</u>)

13. Postcode Summary Reports

Clicking the Summary Reports button on the main form opens this dialog box



Each button opens a report – most have **MANY** pages. The final two postcode reports have around 37400 & 55400 pages **Please THINK before printing!**



14. Help

The Help button opens this User Guide

Appendix A – UK Postcodes

Postcodes were introduced to the United Kingdom by the Royal Mail between 1959 and 1974. There are approximately 2.6 million postcodes in the UK with around 1.8 million currently in use.

On average each postcode contains about 15 addresses.

Typically a full postcode represents a street, a part of a street or a small village.

However, a number of postcodes are non-geographic with no physical addresses

The format of a UK postcode is always one of the following where L represents a letter, and N a number

- LN NLL
- LLN NLL
- LNN NLL
- LLNN NLL
- LLNL NLL
- LNL NLL

Postcodes are made up of outward and inward sections separated by a space

Outward Inward

BS7 8HP

The **outward** part is used by the Post Office to send mail to the correct regional sorting office. It has 2 parts:

- Area usually 2 letters (in this case BS for Bristol) with exceptions such as M (Manchester)
- District area normally followed by a one or 2 digit number e.g. BS7

The **inward** part is used to sort mail into individual delivery rounds from the destination sorting office This always contains 3 characters comprising:

- Sector district followed by a single digit number (in this case BS7 8)
- Zone sector followed by a letter (BS7 8H)
- A final letter to give the full postcode

The inward code never contains the letters C, I, K, M, O, V to reduce possible risk of confusion with other characters when hand-written

NOTE:

Area, District and Sector are all official postcode terminology.

Zone is an extra descriptor used within this application

Special Postcodes

Non – geographic codes are often used for PO boxes and direct marketing. For example all postcodes in area BX and those beginning with EC50, BS98, SW99 Other examples include:

- Girobank (GIR 0AA)
- DVLA (all codes starting with SA99)
- All letters to Santa Claus (XM4 5HQ)!

Some **British overseas territories** also use UK postcodes. For example:

Gibraltar
 Falkland Islands
 British Antarctic Territory
 GX11 1AA
 FIQQ 1ZZ
 BIQQ 1ZZ

Further info: https://en.wikipedia.org/wiki/Postcodes in the United Kingdom

https://www.mjt.me.uk/posts/falsehoods-programmers-believe-about-addresses/

Appendix B - Program Updates

Periodically, new versions of the *UK Postal Address Finder* program will be supplied with performance improvements and additional features. Upgrades are normally very quick and easy to install.

When users log into the program, it checks that the latest version is installed.

This is done using the small utility file, *UKPAFUpdater.accdb*, located in the same folder as the main program file. This is the splash screen seen when *UK Postal Address Finder* is started:



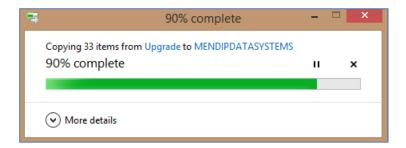
If the current version is up to date, the main program file is loaded:



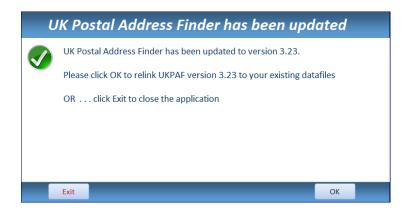
If a newer version is available, the updated files are copied from the *Upgrade* folder to the user's computer.



A green progress bar may be displayed whilst this happens

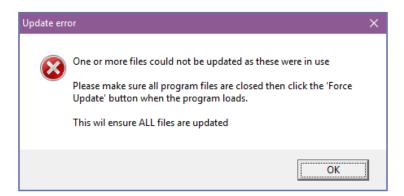


This should normally take less than 10 seconds to complete and is followed by a message similar to this:



Click **OK** to relink the tables as in the initial program setup

In the unlikely event of problems, run the upgrade again using the *Force Update* button. For example, if any program files are open when the upgrade is running, this message is shown:



Appendix C - Possible Issues

Like any complex application, issues may occur from time to time.

The following explains some issues you may experience and possible solutions / work rounds:

Issue	Possible Causes	Suggested Solution / Work round
Problems during new installation or version update	Various issues depending on individual user setup	Recover files to default state & try running the process again See <u>Appendix C</u> for details
Activation code not accepted	 Activation code wrongly entered Code entered on another PC 	 Check & re-enter Enter activation code on same PC used for activation request
Activation email could not be sent	Required information missing	Complete missing information
A feature isn't available	 Certain features are not available in the standard or tablet editions See feature list in <u>Appendix A</u> 	Upgrade to the professional edition
Cannot open application	 Database is LOCKED for maintenance Concurrent user limit reached 	 Wait for program admin needs to unlock application Wait for another user to exit Purchase additional licences or a site licence
Slow performance	Poor network connection	Check network
Error message related to hidden Active X zoom slider control on main form	ActiveX controls are disabled in Access Trust Centre Options	Open Access Options in File menu, then Trust Centre ActiveX settings. Change the setting from disabled to any other setting. See Appendix E for more details
Address data cannot be downloaded	 No internet connection Postcode account not setup Postcode account credit limit reached 	 Check internet connection Create an ideal postcodes account Purchase additional credits
Postcode not listed	 Postcode invalid or not in current use Newly issued postcode e.g. for new houses 	 Check postcode is valid / in use Download the latest postcodes dataset from the Mendip Data Systems website (updated every 3 months)
Postcode maps cannot be downloaded	 No internet connection Google Maps API not valid Very large scale use of Google maps may be 'throttled' 	 Check internet connection Get your own Google Maps API key Check for excessive usage
Geolocation data cannot be obtained	 No internet connection Location services disabled Windows 10 1803 update installed and the geolocation service has failed 	 Check internet connection Enable this in Windows settings Use a GPS enabled device e.g. mobile phone and enter data manually
Geolocation data is inaccurate	Geo-sensor not fitted to the computer	Use a GPS enabled device e.g. mobile phone and enter data manually
Nearby places data cannot be downloaded	 No internet connection No places of specified type within set radius Google Maps API not valid for Places data 	 Check internet connection Modify nearby places search type or distance Get your own Google Maps API key & enable Places API

Please email support@mendipdatasystems.co.uk to alert us if you experience any other issues.