

Mendip Data Systems

***Currency Exchange
Rate Tracker
(CERT)***



User Guide

Version 1.42

Currency Exchange Rate Tracker

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Currency Exchange Rate Tracker

This application is used to obtain the latest **currency exchange rates** using downloaded **JSON** (JavaScript Online Notation) data from an online data source, <https://fixer.io>.

Changes in exchange rates can also be tracked over time and plotted as a chart.

Exchange rates are now supplied for almost 170 **currencies** and are updated **daily** at around **16:00 Central European Time** using data published by the **Central European Bank**.

This online data source was free to use when it was originally chosen in 2017.
The features and range of currencies available have since been significantly enhanced.

As a result, from 1st June 2018, new users will need to pay \$10 per month for this service.
However, legacy accounts are still free so this app is currently provided at no cost to end users.

Several other online sites are available which provide **LIVE** data but those usually require payment.

1. Installation

The **Currency Exchange Rates Tracker (CERT)** application has been designed to run in **Access 2010** or later.
This free version is an **ACCDE** file with different versions supplied for both 32-bit and 64-bit Access.

The application has **not** been fully tested in Access 2007.

The application will be installed to the folder **C:\Programs\MendipDataSystems\CurrencyExchangeTracker**
This location will be made a trusted location
Shortcuts will be created on the **desktop** and **start menu**.



The application includes:

- Access program file (no source code): **CurrencyExchangeTracker.accde**
- Access backend datafile: **CurrencyExchangeTracker_BE.accdb**

By default, all files will be located in the folder listed above.

If you wish to move one or more files at a later date, please see [Appendix A](#)

If you decide to remove the application at a later date, do so using **Add/Remove Programs**
Alternatively, just delete all items in this folder.

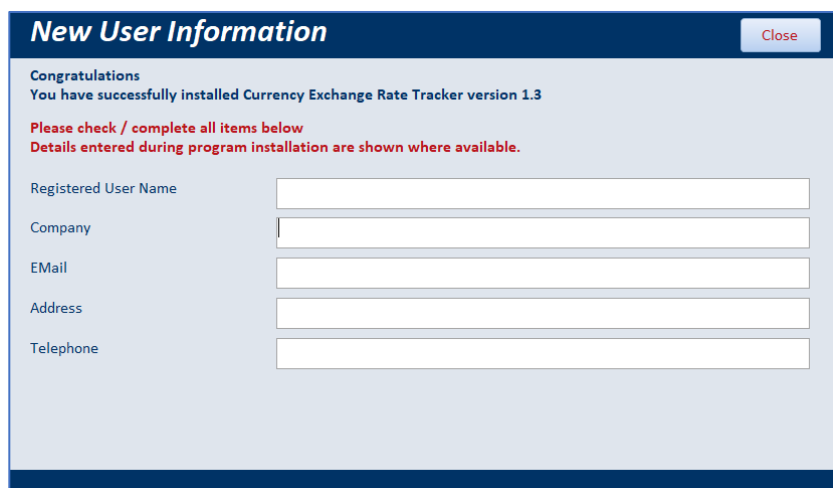
2. Initial Setup

Each time the application runs, a splash form appears briefly.



Various checks are run whilst the form is visible.
It then closes automatically.

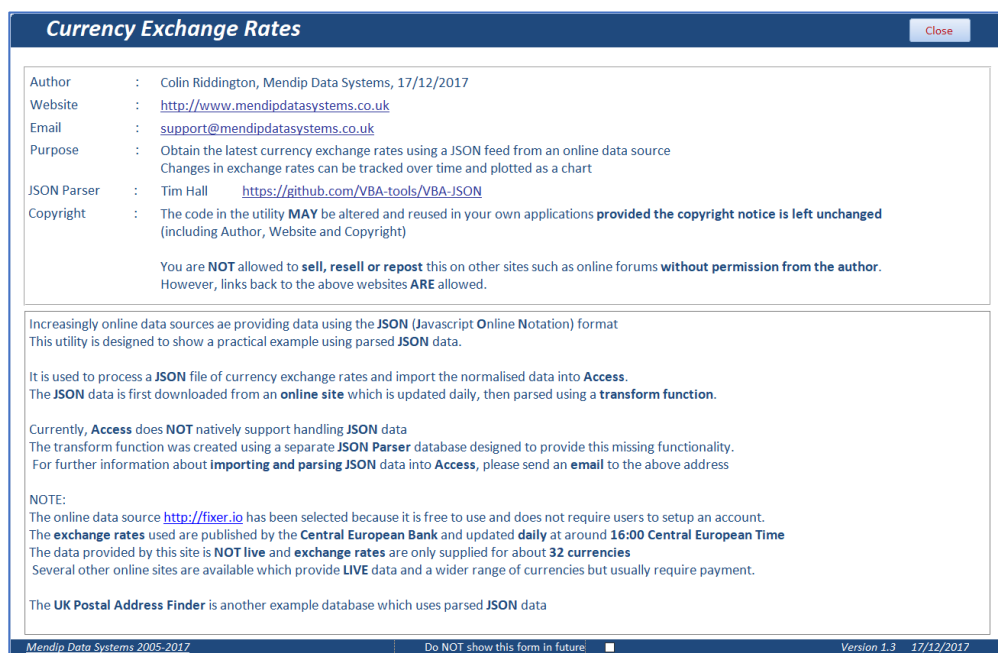
When the application is run for the first time, a user information screen will be shown:



Information entered during installation will be retrieved from the registry.
If you left any of these fields blank, please enter the information now.

3. Start form

This is the default form shown when the application first loads.
It contains a summary of the program together with copyright information



Please note the copyright information on this form.

The application uses JSON parser code available from <https://github.com/VBA-tools/VBA-JSON>
Alternative JSON parsers are available from other sources.

If preferred, you can bypass the **start form** and load the application at the **main form** instead

4. Main form

This is used to obtain the latest exchange rates for the selected base currency. Click the **Update Now** button to download the latest data. An internet connection is required. The default base currency is **British Pounds Sterling (GBP)**.

The screenshot shows the 'Currency Exchange Rate Tracker' application. At the top, there are buttons for 'Select Currencies', 'View Tracker', 'Print', and 'Exit'. Below these, a note states: 'This is used to get the latest exchange rates from an online data source at: http://fixer.io. NOTE: The service is currently free but this may change in the future. Exchange rates are updated daily from the European Central Bank (ECB) for a selection of 167 common currencies. Click the Select Currencies button to choose which currencies you want to track. The default base currency can be modified below. Click the View Tracker button to view changes in selected currencies over a period of time.'

The main section has a 'Base currency' dropdown set to 'GBP', with buttons for 'Get Default', 'Set As Default', and 'Update Now'. To the right, it says 'Exchange rates last updated: 27/05/2018'.

On the left, under 'Latest Exchange Rates: Select any currency to use it in the converter', there is a table with columns 'Code', 'Currency', and 'Rate'. The table lists various currencies including AUD (Australian Dollar), BGN (Bulgarian Lev), BRL (Brazilian Real), BTC (Bitcoin), CAD (Canadian Dollar), CHF (Swiss Franc), CNY (Chinese Yuan), CZK (Czech Republic Koruna), DKK (Danish Krone), EUR (Euro), HKD (Hong Kong Dollar), HUF (Hungarian Forint), IDR (Indonesian Rupiah), ILS (Israeli New Sheqel), INR (Indian Rupee), JPY (Japanese Yen), KRW (South Korean Won), MXN (Mexican Peso), MYR (Malaysian Ringgit), NOK (Norwegian Krone), NZD (New Zealand Dollar), PHP (Philippine Peso), PLN (Polish Zloty), RON (Romanian Leu), and RUB (Russian Ruble).

On the right, the 'Currency Converter' section shows 'Selected Currency: Australian Dollar (AUD)' and 'Base Currency: British Pound Sterling (GBP)'. It displays two conversion rates: '1 GBP = 1.7597 AUD' and '1 AUD = 0.5683 GBP'. A note below states: 'NOTE: Exchange rates offered by banks etc will be subject to a handling charge so will not be the same as the values quoted here'.

At the bottom, it says 'Mendip Data Systems 2005-2017', 'Registered User: Colin Riddington', and 'Version 1.41 04/05/2018'.

Click the **Select Currencies** button to view a list of all 167 currencies available using this app.

The screenshot shows the 'Select Currencies' dialog box. It has a 'Close' button in the top right corner. The main text says: 'Exchange rates are currently available for a total of 167 currencies. Select the currencies you wish to track by ticking the 'Show' column.'

Below this is a table with columns 'Available', 'Currency Code', 'Currency', and 'Show'. The table lists 33 currencies, each with a checked 'Show' checkbox. The currencies are: AED (United Arab Emirates Dirham), AFN (Afghan Afghani), ALL (Albanian Lek), AMD (Armenian Dram), ANG (Netherlands Antillean Guilder), AOA (Angolan Kwanza), ARS (Argentine Peso), AUD (Australian Dollar), AWG (Aruban Florin), AZN (Azerbaijani Manat), BAM (Bosnia-Herzegovina Convertible Mark), BBD (Barbadian Dollar), BDT (Bangladeshi Taka), BGN (Bulgarian Lev), BHD (Bahraini Dinar), BIF (Burundian Franc), BMD (Bermudan Dollar), BND (Brunei Dollar), BOB (Bolivian Boliviano), BRL (Brazilian Real), BSD (Bahamian Dollar), BTC (Bitcoin), BTN (Bhutanese Ngultrum), BWP (Botswana Pula), BYR (Belarusian Ruble), BZD (Belize Dollar), CAD (Canadian Dollar), and CDF (Congolese Franc).

At the bottom, it says 'Record: 1 of 167' and 'Unfiltered'. A button labeled 'Show Selected Currencies ONLY' is also present.

By default only 33 currencies will be displayed. The **Show** checkbox is ticked for these currencies. You can add or remove currencies from the displayed list at any time using this checkbox

Click the **Show Selected Currencies ONLY** button to view those currencies only. The button caption will change to **Show All Available Currencies**. Click again to restore the full list

Click **Close** to return to the main form

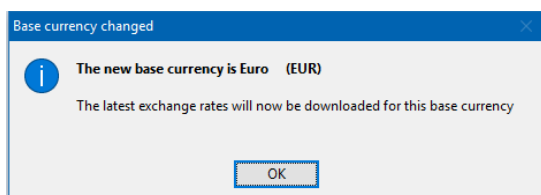
Select any currency from the list to use this with the **currency converter**

The screenshot shows the 'Currency Exchange Rate Tracker' application. At the top, there are buttons for 'View Tracker', 'Print', and 'Exit'. Below these, a text box explains that the application uses data from http://fixer.io and that exchange rates are updated daily. It also mentions that the default base rate can be modified and that a 'View Tracker' button is available to see changes over time. A note states that other data sources are available for live exchange rate data for a larger number of currencies, but may require payment.

The main interface is divided into two sections. On the left, there is a 'Base currency' dropdown menu currently set to 'GBP', with buttons for 'Get Default', 'Set As Default', and 'Update Now'. Below this is a table titled 'Latest Exchange Rates: Select any currency to use it in the converter'. The table has three columns: 'Code', 'Currency', and 'Rate'. The 'EUR' row is highlighted. On the right, there is a 'Currency Converter' section. It shows 'Selected Currency: Euro (EUR)' and 'Base Currency: British Pound Sterling (GBP)'. Below this, there are two conversion examples: '200 GBP = 226.7400 EUR' and '250 EUR = 220.5169 GBP'. A note at the bottom of the converter section states: 'NOTE: Exchange rates offered by banks etc will be subject to a handling charge so will not be the same as the values quoted here'.

Code	Currency	Rate
AUD	Australian Dollar	1.745
BGN	Bulgarian Lev	2.2173
BRL	Brazilian Real	4.3912
CAD	Canadian Dollar	1.7215
CHF	Swiss Franc	1.321
CNY	Chinese Yuan	8.849
CZK	Czech Republic Koruna	29.119
DKK	Danish Krone	8.4391
EUR	Euro	1.1337
HKD	Hong Kong Dollar	10.452
HRK	Croatian Kuna	8.5514
HUF	Hungarian Forint	355.6
IDR	Indonesian Rupiah	18171
ILS	Israeli New Sheqel	4.6973
INR	Indian Rupee	85.892
JPY	Japanese Yen	150.39
KRW	South Korean Won	1453.6
MXN	Mexican Peso	25.476
MYR	Malaysian Ringgit	5.4577
NOK	Norwegian Krone	11.175
NZD	New Zealand Dollar	1.9087
PHP	Philippine Peso	67.512
PLN	Polish Zloty	4.7694
RON	Romanian Leu	5.2408
RUB	Russian Ruble	78.39
TRY	Turkish Lira	1.1337

The base currency can be modified to any of the supported currencies using the dropdown box. After a new currency is selected a message like this will be shown:



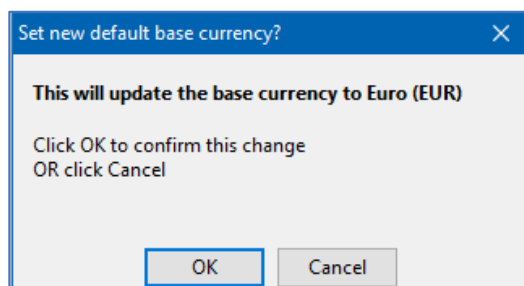
Click **OK** to obtain the latest exchange rates for the new currency.

To return to the default currency, click the **Get Default** button

To set this as the new default base currency, click the **Set As Default** button

The screenshot shows the 'Base currency' dropdown menu with 'EUR' selected. To the right of the dropdown are buttons for 'Get Default', 'Set As Default', and 'Update Now'.

A message like this will be shown. Click **OK** to confirm the change



The **Print** button opens a report listing the currently selected exchange rates.

Click the **View Tracker** button to open a new form showing changes to exchange rates over a period of time

5. Tracker form

This form shows changes in exchange rates over a period of time.

The 20 most recent sets of data are shown

Currency Exchange Rate Tracker

Print Data

Print Chart

Close

The tracker is used to view changes in exchange rates over a period of time. The 20 most recent sets of values are shown. View as data or a chart
In chart view, tick the 'Use' checkbox to show a currency in the chart then click the 'Refresh Chart' button to update the display

Base currency

GBP

British Pound Sterling

Update Now

Show Chart

Code	Currency	23/11/2017	27/11/2017	08/12/2017	11/12/2017	12/12/2017	13/12/2017	15/12/2017	18/12/2017
AUD	Australian Dollar	1.7451	1.7517	1.7846	1.7761	1.7647	1.7636	1.7429	1.745
BGN	Bulgarian Lev	2.1974	2.1883	2.2346	2.2162	2.2208	2.2249	2.2161	2.2173
BRL	Brazilian Real	4.3147	4.3149	4.3913	4.3801	4.4342	4.426	4.4385	4.3912
CAD	Canadian Dollar	1.688	1.6958	1.722	1.7188	1.7144	1.7169	1.7078	1.7215
CHF	Swiss Franc	1.3048	1.3111	1.3372	1.3234	1.3252	1.325	1.3222	1.321
CNY	Chinese Yuan	8.7502	8.8285	8.8808	8.8463	8.8426	8.8382	8.8407	8.849
CZK	Czech Republic Koruna	28.607	28.454	29.197	29.01	29.064	29.179	29.096	29.119
DKK	Danish Krone	8.3813	8.3272	8.5024	8.4343	8.4506	8.4672	8.4352	8.4391
EUR	Euro	1.1236	1.1189	1.1425	1.1331	1.1355	1.1376	1.1331	1.1337
HKD	Hong Kong Dollar	10.396	10.433	10.473	10.435	10.429	10.422	10.45	10.452
HRK	Croatian Kuna	8.5139	8.4574	8.6253	8.5462	8.561	8.5894	8.551	8.5514
HUF	Hungarian Forint	351.72	348.24	359.33	355.75	356.92	357.61	355.15	355.8
IDR	Indonesian Rupiah	17946	18057	18178	18107	18172	18166	18163	18171
ILS	Israeli New Sheqel	4.6746	4.6827	4.7238	4.7149	4.7291	4.7332	4.7176	4.6973
INR	Indian Rupee	85.964	86.258	86.464	86.096	86.036	86.021	86.672	85.892
JPY	Japanese Yen	148.07	148.46	152.25	151.46	151.63	151.29	150.08	150.39
KRW	South Korean Won	1443.3	1454	1468.5	1456.8	1454.9	1455.2	1455.7	1453.6
MXN	Mexican Peso	24.822	24.757	25.387	25.274	25.5	25.644	25.64	25.476
MYR	Malaysian Ringgit	5.4687	5.4929	5.4843	5.4395	5.4344	5.4558	5.4574	5.4577
NOK	Norwegian Krone	10.83	10.913	11.159	11.198	11.156	11.177	11.085	11.175
NZD	New Zealand Dollar	1.9323	1.9362	1.9602	1.9319	1.9253	1.9209	1.904	1.9087
PHP	Philippine Peso	67.265	67.196	67.793	67.3	67.422	67.405	67.452	67.512
PLN	Polish Zloty	4.7328	4.709	4.8009	4.7629	4.774	4.7945	4.778	4.7694
RON	Romanian Leu	5.2289	5.1936	5.294	5.2491	5.2613	5.2699	5.2499	5.2408
RUB	Russian Ruble	77.787	77.729	79.573	79.088	78.88	78.636	78.755	78.39
SEK	Swedish Krona	11.06	11.106	11.269	11.35	11.279	11.269	11.284	11.29
SGD	Singapore Dollar	1.7917	1.7973	1.8154	1.8059	1.8055	1.8059	1.8013	1.803
THB	Thai Baht	43.495	43.622	43.829	43.615	43.567	43.497	43.463	43.646
TRY	Turkish Lira	5.2154	5.2314	5.1602	5.1087	5.1142	5.1467	5.1673	5.1303
USD	United States Dollar	1.3312	1.3373	1.3416	1.3367	1.336	1.3351	1.3377	1.3372
ZAR	South African Rand	18.472	18.359	18.325	18.201	18.186	18.187	17.882	17.193

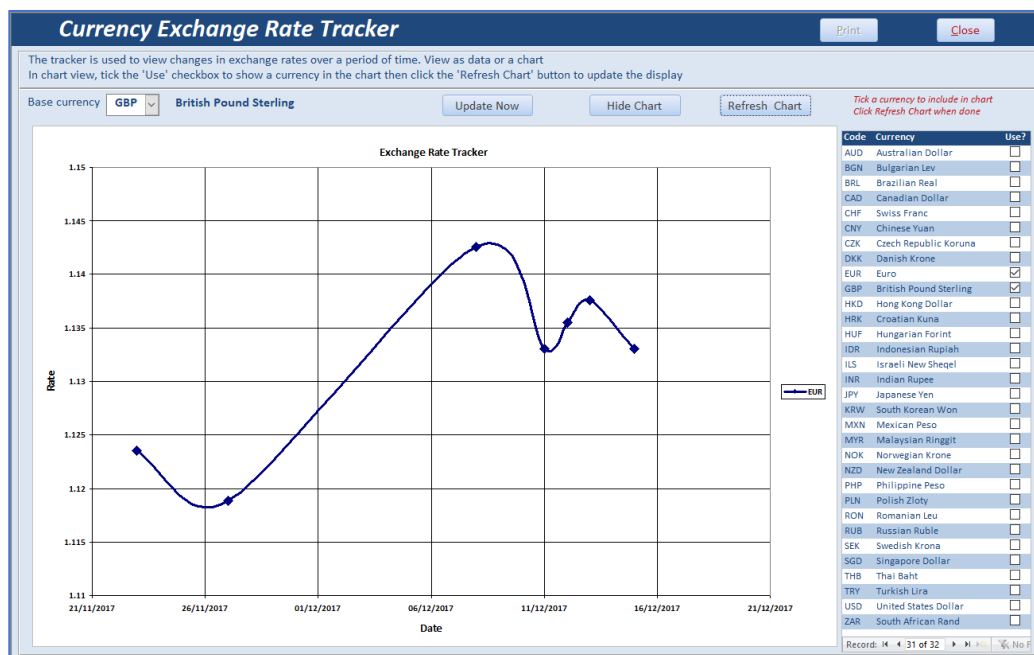
Records: 1 of 31

No Filter

Search

Click the **Print Data** button to show this information as a report

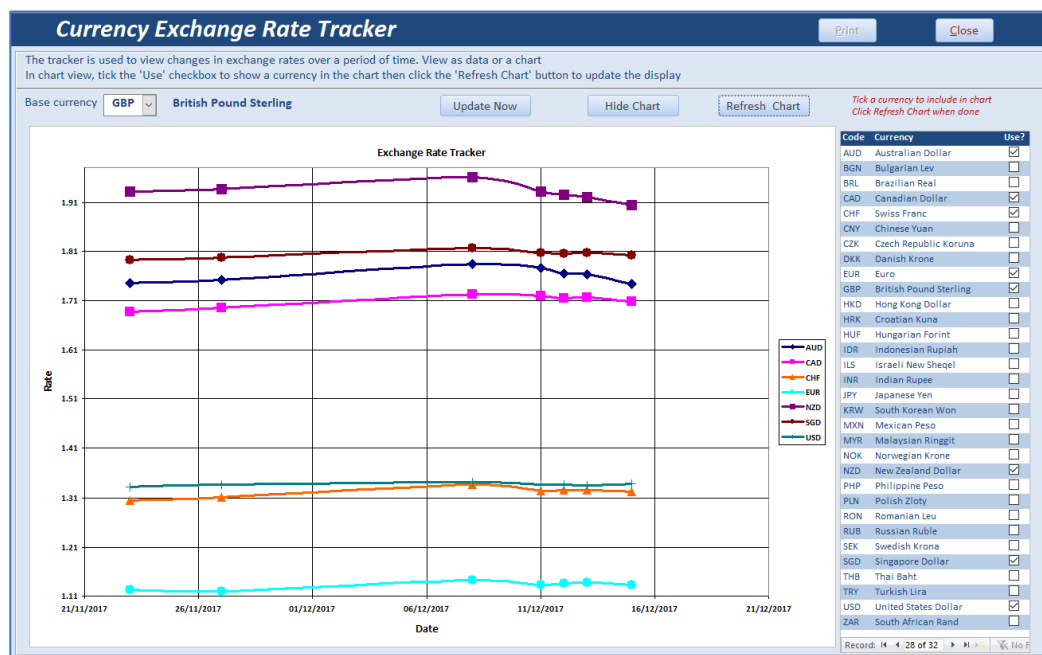
Click the **Show Chart** button to display exchange rates as a line chart for one or more currencies



The **base currency** can be changed. Both scales will be updated automatically

Use the **currency list** on the right to alter the currencies that are included in the chart
Tick to add a currency, 'untick' to remove

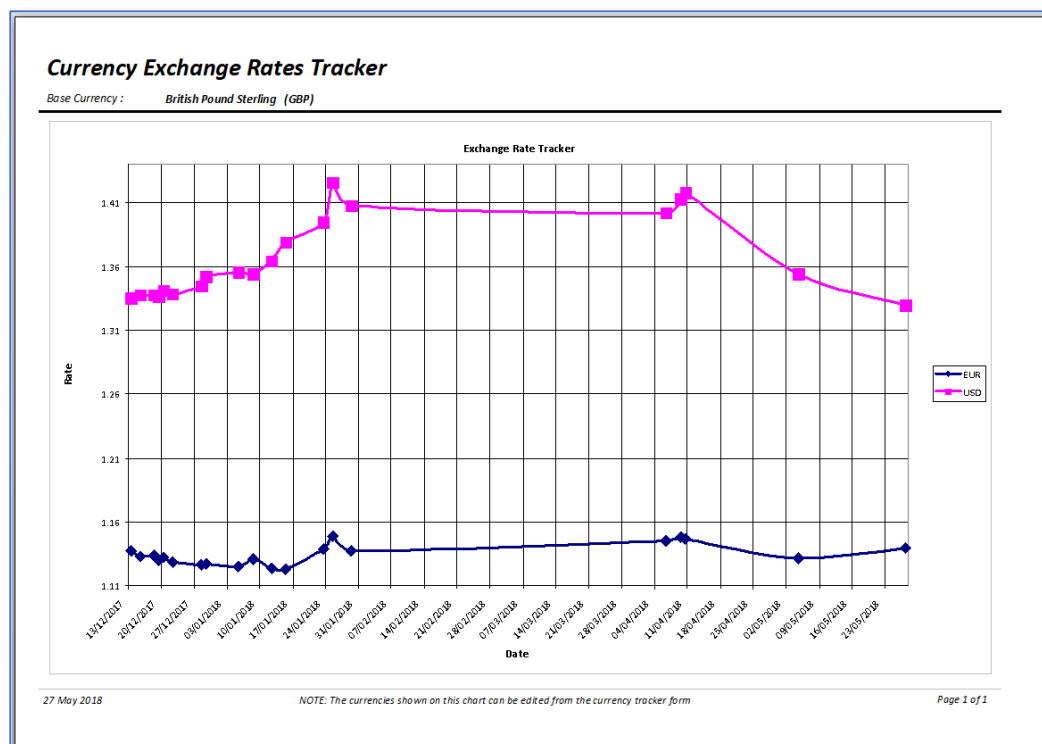
When you have finished adding/removing currencies, click the **Refresh Chart** button
The vertical scale will be updated automatically.



If the exchange rates for the selected currencies are very different, the chart scale will cover a very wide range making it difficult to see changes over time.

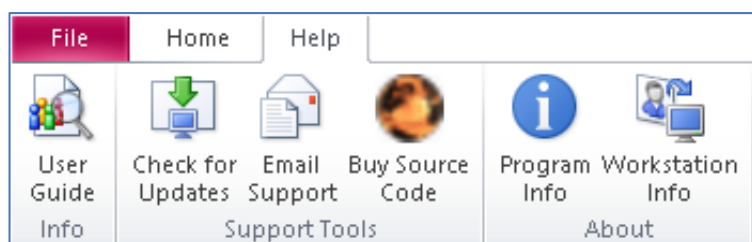
In general, the chart will be clearer if fewer currencies are selected.

To view the chart as a report, click the **Print Chart** button



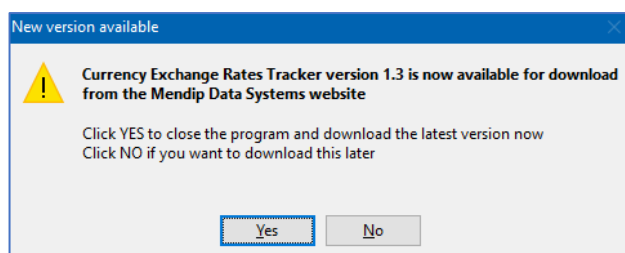
Click the **Hide Chart** button to return to the data table

6. Help Ribbon



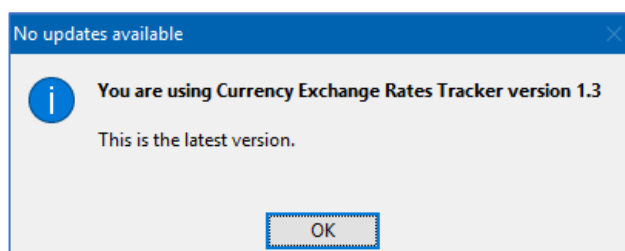
The **Help** ribbon contains 6 items for quick access:

- **User Guide** – opens this document
- **Check for Updates** – checks for a newer version on the **Mendip Data Systems** website. If a newer version is available, you will see a message similar to this:



Click **YES** to download the latest version from the website

If you already have the latest version, a message similar to this will be shown:



NOTE:

The updated program file will look for the backend data file in the default location.

If this has been altered, follow the procedure described in [Appendix A](#) to relink the tables

- **Email Support** – use to send an email to **MDS customer support**:
 - if you have any questions about using specific parts of the application
 - to report any bugs / errors you experience using the application
 - to suggest improvements or additional features for a future version

If you are reporting a bug, please include the following information with the email as it may assist in providing a solution:

- Program Version – e.g. 1.41
- Access Version e.g. Access 2016 32-bit / Access 2010 64-bit
- Windows version e.g. Windows 10 Home
- Screen resolution e.g. 1680 x 1050

All this information is all available from the **Workstation Info** screen (see below)

- **Buy Source Code**

This application has been supplied **free** to users as an **Access executable file (ACCDE)**

This means that **program code** is **not** available for viewing and the **application cannot be modified**

If you would like **full access** to the **program code**, this can be purchased at a reasonable price.

An **ACCDB** file will be supplied with full program code which will allow you to modify the application or to use parts of it in your own applications.

Click the **Buy Source Code** button to go to the [Purchase](#) page on the **Mendip Data Systems** website.

NOTE: If you are using the FULL version of this program, you already have the source code

- **Program Info**

This opens a **READ ONLY** form giving summary info for the application

Program Info			Close
ID	ItemName	ItemValue	
1	ProgramName	Currency Exchange Rate Tracker	
2	Version	1.41	
3	VersionDate	25/05/2018	
4	ProgramFolder	C:\Programs\MendipDataSystems\CurrencyExchangeTracker	
5	SupportEmail	support@mendipdatasystems.co.uk	
6	ProgramWebsite	http://www.mendipdatasystems.co.uk/free-apps/4592091376	
7	Author	Colin Riddington	
8	Company	Mendip Data Systems	
9	JSONParserAuthor	Tim Hall	
10	JSONParserWebsite	https://github.com/VBA-tools/VBA-JSON	
11	WebVersion	1.32	
12	StartFormStatus	No	
13	UpdateFlag	No	
14	Tablet compatible	Yes	
15	64-bit compatible	Yes	
16	DefaultBaseCode	GBP	
17	SelectedBaseCode	GBP	
18	RegisteredUser		
19	UserCompany		
20	UserAddress		
21	UserTelephone		
22	UserEmail		
23	LicenceKey		
24	SupportExpiryDate		
25	APIKey	52edff746cbb5df900d42ed072679935	

- **Workstation Info**

This opens a **READ ONLY** form giving summary info for your computer workstation

Workstation Info	
Workstation Name:	COLIN-PC
Windows Version :	Microsoft Windows 10 Pro 10.0.16299 32-bit
Access Version :	2010 SP2 32-bit: Build 14.0.7195
Screen Resolution :	1680*1050 Widescreen
OK	

Please include this information in any emails to program support

An easy way to do so is by taking a screenshot of the form

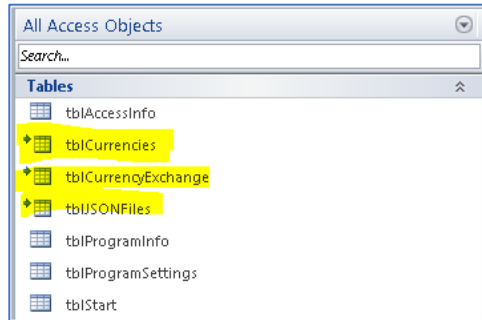
Appendix A – Managing the data file

The application expects to find the Access backend data file, **CurrencyExchangeTracker_BE.accdb**, in the default program folder **C:\Programs\MendipDataSystems\CurrencyExchangeTracker**.

If you want to move this to another location, you will need to relink the 3 backend tables.

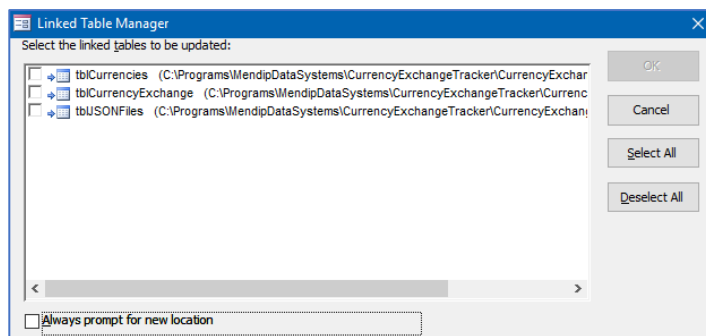
To do so, **HOLD** the **Shift** button down as you open the program file, **CurrencyExchangeTracker.accde**

The table list will be shown – there are 4 local tables & 3 linked tables (highlighted below):



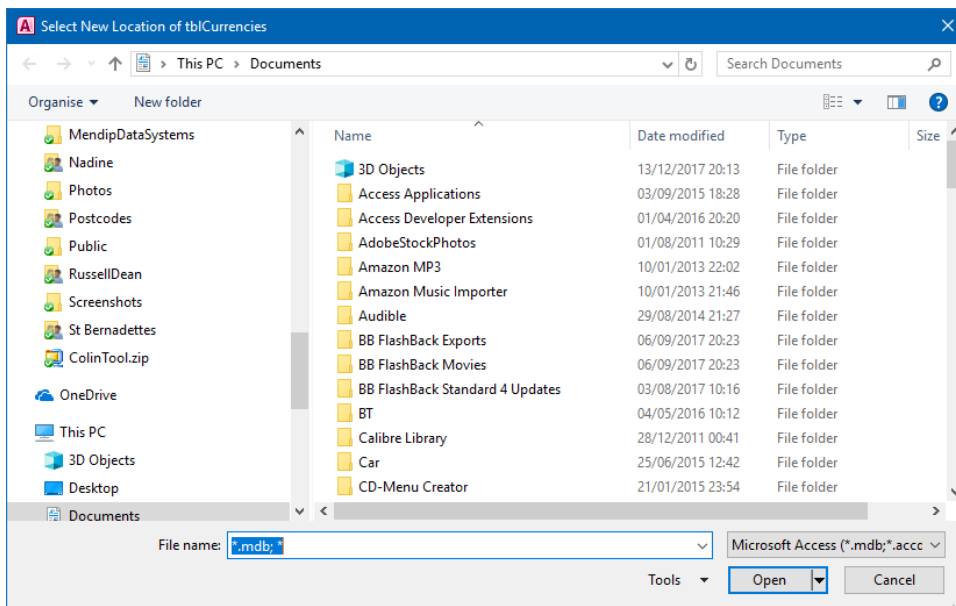
Right click anywhere in the **Tables** list and select **Linked Table Manager**

This dialog box will appear showing the 3 linked tables

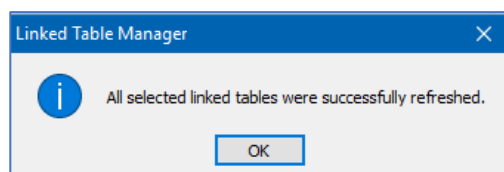


Next tick **Always prompt for new location**, click **Select All** and then click **OK**.

A dialog box will appear. **Browse** to the new location & click **Open**



The tables will be relinked and a message like this should appear:



Once the tables have been relinked, the application can be opened in the usual way.

NOTE:

The application has been created as a **split** database so that it can easily be adapted for multiple users. To do so, move the backend data file to a network location and relink the tables. Each user will need to have a copy of the front-end data file.

If you decide to do this, a donation would be appreciated.
Please email info@mendipdatasystems.co.uk to discuss.

Appendix B – Using the tracker in your own applications

If you have purchased the full source code, it is possible to use the tracker as part of your own applications. To do so, do one of the following:

1. Continue using as a SPLIT database

IMPORT the following items to your own application:

6 tables: tblAccessInfo, tblProgramInfo, tblProgramSettings
tblCurrencies, tblCurrencyExchange, tblJSONFiles

NOTE the last 3 are linked tables in the back end database **CurrencyExchangeTracker_BE.accdb**

ALL queries/forms/reports/modules

Then run the tracker from **frmMain / frmTracker** as in the original version

The supplied front end database, **CurrencyExchangeTracker.accdb** is longer needed and can be **deleted**
Do **NOT** delete the backend database, **CurrencyExchangeTracker_BE.accdb**

2. Use as a standalone database

Follow the steps above

Then right click on the 3 linked tables and select **Convert to local table**

The supplied front end & backend databases will no longer be needed and can both be deleted

3. Modify your own application

Once you have done one of the above steps, you can examine the code and adapt it so it becomes fully integrated into your own project.

The steps to do this will vary depending on your existing project code.

NOTE:

You are allowed to use this code in your own applications provided ALL copyright information is INCLUDED with your own application

You MAY not re-use the code as part of any projects that you sell, UNLESS you first obtain permission from Mendip Data Systems

I hope you find this version of the **Currency Exchange Rates Tracker** application useful.
Feedback on its use and suggestions for further development will be very welcome.

Colin Riddington
Proprietor
Mendip Data Systems

Email: support@mendipdatasystems.co.uk
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