

# Readme for MDB Doc 1.65

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## 1. What is MDB Doc?

MDB Doc version 1.65 is an add-in for Microsoft Access 2007, 2010 and 2013, used to automate the creation of database documentation in HTML format for the following object types:

- Database Properties
- Tables
- Queries
- Forms
- Reports
- Macros
- Ordinary and Class modules

- Form Modules
- Report Modules
- Relationships
- Command Bars
- Function/Sub/Property routines within modules.
- Data Access Pages
- VBA references
- Ribbons
- Import/Export specifications

Older versions of MDB Doc are available that support correspondingly earlier versions of Microsoft Access.

## 2. Why did I write MDB Doc?

I wrote MDB Doc for a number of reasons:

- I needed a way to be able to document a number of databases written by other people fairly quickly and easily.
- An educational tool for myself to learn how to write an add-in and master the Data Access Objects model.
- I have tried many other add-ins that document various aspects of Access databases, and have found them lacking in one way or another. For example, one only detailed tables and queries, which wasn't detailed enough for my requirements. Another displayed the full source code of each module which was too detailed for my needs, and also saves its output to the snapshot format, which meant that viewing it was impossible for people without the Snapshot viewer, whereas web browsers are far more commonplace.
- It also gave me a chance to practice my knowledge of HTML/XHTML and CSS.
- I was working in an environment in which a tool called PB Doc from <http://www.pbdr.com/> was used to produce a similar output file for applications written in PowerBuilder from Sybase. I needed to produce similar output for the projects written in Access. This is where the inspiration for the name "MDB Doc" comes from.

## 3. System Requirements.

MDB Doc version 1.65 requires a computer running Microsoft Access 2007, 2010 or 2013 on any supported Windows operating system that run the appropriate version of Access. Earlier versions of the product support earlier versions of Microsoft Access. See the website <https://mdbdoc.sourceforge.io/> for details.

A modern web browser that supports tables and CSS such as Microsoft Edge, Google Chrome, Mozilla Firefox or Opera will be needed to view the HTML output files that MDB Doc creates, although no software in addition to MDB Doc (and Access) is required for creating them. Due to the use of CSS3 in the output, versions of IE prior to v9 are unlikely to display the results properly.

Since the upgrade to version 1.50, MDB Doc makes use of HTML5 tags. This means some items may not render properly using older web browsers (eg IE8 and earlier). I hope that this will not pose too much of an issue for developers, as I hope by now this should only be an issue when regression

testing software. As this is purely for display purposes I have not put in any of the remedial functionality to make it work with older functions, for example html5shiv.

If the database has been secured with Access security, Read Design permission is required for all objects required. Additionally, Read Data permission is required on tables.

As MDB Doc needs to be able to access design of forms and source code of modules, it will not work under:

- The Access runtime version or
- Databases compiled into MDE/ACCDE format

MDB Doc does not write anything into the database you are processing, but you will of course need free space on the drive where you are saving the output to in a directory with sufficient access permissions if you are running from an NTFS format drive or are saving to a network drive. Its only requirement for writing data into itself is if you change any of the preferences, which are stored in a table inside the Add-in itself.

The only time you will need to add items into the code to your databases for MDB Doc is if you wish to use the property/sub/function comments feature introduced in version 1.2.

#### **4. How do I install MDB Doc?**

To install MDB Doc, extract the file MDBDOC.MDA to your Microsoft Office Addins directory. If you have chosen to use all the default locations during installation, the directory/folder you need is:

##### **Under Windows Vista, 7, 8.x and 10**

C:\Users\\AppData\Roaming\Microsoft\Addins

##### **Under Windows XP**

C:\Documents and Settings\\Application Data\Microsoft\Addins

Once that is done, load Access and open any database. Open the Tools menu and choose Add-Ins, then click on Add-In Manager.

Double click MDB Doc to add it to the list of available Add-Ins.

Please note that if you are in a networked environment, these paths may differ. If this is the case, please consult your IT support staff to find out where to put the file prior to installing MDB Doc, and gain permission to write to the shared installation if applicable, as it may be read only for security reasons.

If you have an earlier version of MDB Doc, please uninstall it before upgrading to the new version. See section 4.1 for further information.

##### **4.1 How do I uninstall MDB Doc?**

To uninstall MDB Doc, open Access and any database, then open the Database Tools tab, open Add-ins then Add-in Manager. Double click the X against MDB Doc to uninstall it. Then, close the database and exit Microsoft Access. You can now use Windows Explorer to navigate to your

Microsoft Office Add-ins directory and delete the file. The HTML files generated will remain but can be deleted safely if you wish.

## 5. How do I use MDB Doc?

First follow the instructions to install it on your system if not already done so. Then open Access and the database you wish to document. Use the Database Tools tab, Add-ins menu and click on MDB Doc. This will open the startup screen. From here you can set preferences, name the output file and trigger the processing of files.

### General

Regardless of the version of Access you are using, from the startup screen you will be able to choose what to call and where to save the output file, the default being the same path and filename as the database, but with a .HTM extension. Therefore, S:\Databases\Database.mdb would have a default output file of S:\Databases\Database.htm, unless you have used the Default Output Location preference to specify a standard output folder.

When you are happy with that, click the "Process Database" button, and wait. The actual time taken will vary depending on the speed of your computer, the size of the database and number of objects. The status bar at the bottom of the access window will give you some idea of how far MDB Doc has progressed.

If a file exists in that location with the same name, you will be asked if you wish to overwrite the existing file, in which case you can abort the process by clicking No and choosing a new location or filename, or clicking Yes to overwrite the existing file.

If you receive the message "MDB Doc cannot process an MDE database" then please open the source code copy of your database. This is because MDB Doc needs to access the source code for modules and form/report design, which is not available in an MDE or ACCDE file.

You will be able to customise preferences via the button on the startup screen. Closing the preferences screen is enough for changes to take effect.

### 5.1 Named IDs within the output file.

If you wish to put the output files produced by MDB Doc within an intranet or for software documentation purposes, there are a number of predefined HTML IDs that you can use to create links that jump directly to the sections, which are used by the contents list. You can use the following names to create a hyperlink directly to the section concerned:

Object Type	ID name
Database properties	mdbDBProps
Tables	mdbTables
Queries	mdbQueries
Forms	mdbForms
Form Modules	mdbFormModules
Reports	mdbReports
Report Modules	mdbReportModules
Macros	mdbMacros
Ordinary Modules	mdbModules
Relationships	mdbRelationships

Command Bars	mdbCommandBars
Function/Sub/Property routines within modules. (Please see below)	
Data Access Pages	mdbDataAccessPages
VBA References	mdbReferences
Ribbons	mdbRibbons
Import/Export specifications	mdbImpExpSpecs

To obtain the list of code routines within a module, you pass the module name as an argument. For example modStringfunctions or clsFilehandler. The same applies to form and report modules, but remember that the module name must be prefixed with Form\_ or Report\_ as appropriate. For example, Report\_rptCustomerList or Form\_frmEnterClients.

Indexes are not standalone objects, but attached to the table. You can access these by going to idx and then the table name, for example idxCustomers.

There will not be an ID for lightweight forms and reports (those without a module), or those modules that have only a declarations section (ie no body). The presence/absence of such can be identified by a hyperlink under the form, report or module's name in their main section, which will take you to the function/sub/property list for the appropriate module.

For example, `<a href="http://server/program/docs/database.htm#mdbTables">Tables</a>` would create a link to the Tables section for the file named database.htm in /program/docs on the web server, and

`<a href="http://server/program/docs/database.htm#Form_frmMaintainCustomers">frmMaintainCustomers Module</a>`

would create a link to the code routine for the form module behind frmMaintainCustomers.

You can create a hyperlink to the contents list by linking to mdbContentsList within the file.

If your database objects have spaces in them, you must put %20 in place of spaces in the URL. Eg

`<a href="http://server/program/docs/database.htm#Form_frmMaintain%20Customers">frmMaintainCustomers Module</a>`

**Note:** Access allows different object types with the same name in the same database. This will result in duplicated ID values. For example, in the Northwind 2007 database, there is both a table and a module named Privileges, but both would end up with an ID of that value. This would result in an output file that will fail validation by tools such as the W3C HTML validator at <http://validator.w3.org>

## 5.2 How do I use the ability to document individual functions, subs and property routines?

MDB Doc since version 1.1 includes a feature where a comment per sub/function/property routine can be used. This is a one line comment at the top of the line just under the prototype, starting with:

```
'MDBDOC :
```

Anything after the colon through to the end of the line will be treated as a comment. For example:

```
'MDBDOC: This is a comment
```

would produce "This is a comment" (without the quote marks) in the description field.

To see this in practise, please look at the MDBDoc source code as I have included comments, and the file "mdbdoc.htm" which I created by running MDBDoc over the source code, as this will show you what the output produces.

As this line is a comment as far as VBA is concerned, it will not affect your source code output at all.

From version 1.4 onwards there is a setting available on the preferences screen that will let you change this to something of your own. Note that if you do change this, you need to change all existing occurrences of 'MDBDOC: to your own choice.

## 6. Known Bugs.

- When documenting a table linked through ODBC, the accuracy of the data type and size of fields within it depends upon that which is reported by the appropriate ODBC driver through which the tables are linked.

## 7. Future Enhancements.

The main enhancement list is now on Sourceforge to centralise requirements. It can be viewed at <https://sourceforge.net/p/mdbdoc/feature-requests/>.

New enhancement suggestions can be submitted through there.

## 8. Feedback.

I am always happy to receive your comments and bug reports on MDB Doc to [j\\_r\\_barnett@hotmail.com](mailto:j_r_barnett@hotmail.com).

## 9. Version History.

1.65 – June 2021

- Fix bug whereby there was a superfluous closed table tag at the end of the <tables> section if there were no tables or table details displayed
- Fix bug where nav tag had ARIA role=navigation assigned – this was superfluous to requirements. (together these were ticket #17 on Sourceforge)
- Adds meta role="viewport" for better display on mobile devices

#### 1.64 – March 2021

- Change of homepage from <http://mdbdoc.sourceforge.net> to <https://mdbdoc.sourceforge.io> and amendment to URLs
- New preference for product homepage to avoid hard coded references

#### 1.63 – May 2019

- Rewrite of API functions to use FileDialog to make the same code work across 32 and 64 bit versions of Access.
- Rewrite of API functions to use GetObject to make the same Addin descriptions work across 32 and 64 bit versions of Access
- Removal of ability to delete a file to the Windows recycle bin. Again, this was for the same code to work across 32 and 64 bit versions of Access
- Added list of Indexes to Table Details section. It is displayed for all tables that have table details configured to be included (no separate preference)

#### Documentation update December 2016 (no code changes):

- Replace all references to version 1.61 with 1.62
- Rework some of the wording to make it better understood.
- Add installation instructions for Windows 10

#### 1.62 – October 2015

- Bug fix. The menu preferences for queries and forms were not being used to correctly display the appropriate menu options at the top of the output file. This would only have been an issue if the user had some of the ProcessXXX preferences set to Off.
- There was no top level menu option being outputted for Forms pointing to mdbForms, regardless of the preference setting.
- Attachment field type is now recognised.

#### 1.61 – September 2014

##### Bug fixes:

- Adds inclusion of whether the database is in a compiled state and whether there are any broken references to the top level header.
- Fixed bug introduced in 1.60 about not displaying fields for tables whose names didn't start MSys or USys.
- Because of UAC on Windows Vista/7 and beyond, the full name of the reference was not being exported unless Access was run as Administrator – this turned out to be because the

Windows API code to read the data from the registry requested full rather than read only access to the necessary keys.

#### 1.60 – September 2014

New version for Access 2007 and beyond. The main changes are:

- Adds support for Ribbons loaded from the USysRibbons table
- Adds support for Import/Export specifications
- A check is done at the startup that it is running on Access 2007 or newer with an error message if not.
- The windowmode :=acHidden parameter has been added to the OpenReport flag. This was listed in earlier versions as an option, with the caveat that this would not be usable in Access 2000. As this version requires Access 2007 or later, it can be safely added in.

Both Ribbons and Import/Export specifications were unavailable in earlier versions of Access. In both cases, the XML data is run through the web page encoding process so that the web browser properly displays the code, ie it won't try to interpret characters such as < and > as HTML tags and thus affect the display. This means though the XML can't simply be extracted from copying from the browser's View Source function, a search and replace will be needed for it to become a valid document.

The previous version 1.52 has been kept as is but re specified for Access 2000-2003.

#### 1.52 – August 2014

This is mainly concerned with minor bug fixes from 1.51:

- In the upgrade to 1.51, a bug was introduced meaning there was no overall </body> tag in the results. This has now been corrected.
- Module objects that were opened by the documenter are now closed.
- Additionally, if the VBA editor was opened as part of running MDB Doc, it is now closed when finished.
- The enhancements list has been removed from both the Readme file and MDB Doc website homepage, and placed within the MDB Doc sourceforge.net pages, with a reference in both old places. This centralises 3 different versions with different items on each to a single authoritative list.

#### 1.51 – June 2014

- Following testing the output against WebAIM accessibility checker, changes have been made to give better compliance with accessibility:
  - All <th> tags are now written as <th scope="col">,
  - Levels of header tags are not omitted from the output,
  - thead and tbody tags implemented. While not strictly speaking required, it is anticipated that browsers will use this to repeat headers on long printouts in the future.



- Implemented aria role for the menu.
- Corrected bug whereby modules that contained only declarations were given a hyperlink to an ID that was not created.
- CSS to give alternating background colours in the output file and updates to handle changes to headings.

#### 1.50 - April 2014

- Tested against Access 2010
- As XHTML has now been deprecated by the W3C, this heads towards outputting HTML5 compliant markup. Including:
  - Amendment of DOCTYPE and META content-type tags
  - Removal of summary elements on table tags
  - Replacement of deprecated "align=right" in table cells containing numbers with a class definition in the CSS and "class=rightNum" in the td tags.
  - Removed meta copyright entry from USysMDBDocPreferences table and VBA source code in line with HTML5 specification
  - Replacement of space with %20 in names of database objects.
  - The contents list is now a set of li tags inside a nav rather than a HTML table.
  - The MDB Doc copyright notice is now an HTML5 footer
  - Internal HTML name tags used purely for navigation have been removed entirely and IDs added to the relevant header to support access to specific parts of the file.
- All CSS now comes from mdbdoc.css file on the MDB Doc sourceforge site rather than being written into the resulting file by VBA (unless the preferences were amended to use a different file). The system preferences can be used to override this to allow a custom version, but you will need to host the file somewhere appropriate for your own needs, eg if you want it to fit in with organisational standards.  
 Note: I am not a CSS and cross platform web design guru. I am sure that a talented web developer would be able to do a far more professional job than I have done here.
- Bug fixes:
  - SQL code is now always outputted inside a <code> ... </code> block. Previously if the Format SQL preference was switched off it was outputted inside <pre> ... </pre> tags
  - In the tables section, the last opening td tag was written with a space before the end unnecessarily eg <td >
  - The recordsource of forms and reports is now parsed to properly escape the code. This is in case it is a query that contains characters reserved in HTML.
  - Error message was always being displayed when reference was made to any CSS settings. This has been fixed.
- No more upgrades for Access 97.
- Preferences screen no longer displays the MDB Doc version number in the header.
- Documentation is now a PDF rather than text file.

#### 1.45 - April 2011

- Tested against Access 2007
- Documentation update:
- Removed references to all Windows versions before 2000 and adding Windows Vista and 7.
- Adding details for running under Access 2007/2010.
- Modified sample HTML code links to lower case to better fit with XHTML code requirements now in common use.
- Replaced Netscape Communicator with Google Chrome under the system requirements.
- Features as 1.42 Beta 1 with the following bug fixes:
- head tag not being closed
- Incorrect nesting of tags in References section

#### 1.42 Beta 1 - March 2008

- Changes the way it handles extensions. This way, when run with .accdb files under Access 2007, it names them correctly by default (ie .htm rather than .achtm with the default settings).
- Fixed a bug in the CloseObjects Sub to ensure objects were closed before proceeding with the analysis.
- Enhanced preference error checking. It is now not possible to modify read only preferences from the form; it also checks for non null values on those with a mandatory value preference set (added in this release).
- Added preference to format data access page connection strings with a newline every semi colon.
- Added preference to format SQL with a new line for every keyword. At present, this is a bit dodgy though, the output when included in a table widens the column unnecessarily.

#### 1.41 Released October 2007

- Added output of VBA references in the output file.
- Support for outputting the trademark (ASCII code 153) and Reserved (ASCII 34) symbol for browser independent display.
- The version number output is now keyed to the value in the preferences screen (easier for me to roll the version number)
- The VBA code is now a lot tidier.
- There is a new preference to change the comment tag. Please be careful if you do change this - it will mean editing the code in each of your databases. It is to enable organisation specific settings.
- Added accelerator key on the Addins menu.
- The software is now released under the terms of the GPL version 3.0.

#### 1.3. Released May 2005.

- Data outputted is now XHTML 1.0 rather than HTML 4.01.
- Data output now meets Bobby criteria for disability accessibility.
- If old output files exist and operator clicks Yes to overwrite, they are deleted to the recycle bin rather than simply overwritten, to allow a chance to recover from accidental deletion.

- Code uses proper table headers (TH) tags rather than table cells in the top row, with CSS styling to left align them, to help with accessibility.
- MDB Doc has a set of preferences which can be used to define values for Meta tags, style sheets, the ability to override the default output path (for example, to have it save directly to a web server), the ability to selectively enable/disable the processing of individual object types, and the ability to delete a file to the recycle bin (only if the file is stored on a local drive, not via a network).
- At the moment, these are set at the Add-in level only. One of the items on the wish list is to be able to set this on a per database level with the information stored in a table locally to the database. With a view to possibly doing this, the preferences table already includes a field to indicate whether it can be overridden at the database level.

#### 1.2. Released 2 November 2003.

- Found and fixed minor bugs relating to HTML output not always closing tags when opened.
- Added replacing of characters that have special meaning in HTML (eg &, < and >) with their escape code equivalents. Although modern browsers generally cope well without these, older ones may have trouble.
- Slight rewrite of the documentation. In parts it seemed to deviate from English.

#### 1.1b. Released 25 October 2003.

- Minor bug fix to 1.1a - removes the call to an invalid argument in the OpenReport command when run in Access 2000. This was not picked up on because the On Error handler just proceeds.

#### 1.1a. Released 24 October 2003.

- Minor bug fix to v1.1 - fixes bug whereby if you had an MDBDOC comment in a function, sub or property routine, but didn't have one in the sub, function or modules lower down, it would repeat the earlier comment.

#### 1.1. Second public release. Released on 24 October 2003.

Changes include:

- Upgraded to run on Access 2000 and 2002 (XP).
- Output files now are fully HTML 4.01 compliant according to <http://validator.w3.org>.
- Fixed bug which stops an "Openform action cancelled" message appearing if you try to process an MDE format database
- Added facility to comment on function/sub/property routines within modules (see section 5.2 above).
- Added checks to ensure that the user has the opportunity to abort where an existing file with the same name would get overwritten.
- Source code published.

#### 1.0 First public release. Released July 2001.

## 10. Why give it away?

I have made MDB Doc available for free in the hope that someone, somewhere will find it useful. Please consider it my contribution to the Access development community to repay them for my use of the many free tools, Access / VBA and HTML/CSS development websites and technical forums on the internet.

If you feel that MDB Doc is worth money to you, please donate an amount you feel appropriate to your preferred charitable cause.

## 11. Why publish the source code?

I have decided that starting with version 1.1 of MDBDoc to publish the source code for a number of reasons:

Firstly, I have found source code for similar Add-ins and documenters elsewhere on the internet, so decided to do likewise.

Secondly, I have already published extracts from the code on my postings relating to Access database design and development on the Tek-Tips forums, <http://www.tek-tips.com/>. To withhold the source code having published significant parts would be sheer folly.

Reading the open source development essays written by Eric Raymond had a great influence on my decision to publish the source code. In this way, if anybody wishes to add extra functionality, fix any bugs I have missed, port it to another version of Access or just find out how it works, they are welcome to do so.

It is for this reason that from 1.4x onwards, MDB Doc is released under the GPL.

You can tell from the erratic release schedule that I don't have much time to spend working on it. I do relatively little Access development now so have little incentive to further develop this myself. Therefore, if you need specific features it is better to develop it on your own rather than wait for a future release.

### 11.1 How do I access the source code?

If you are interested in how MDB Doc works under the skin, I suggest taking a copy of the mdbdoc.mda file, rename its extension to .mdb and then open it in Access.

From here on you can easily get into the source code, form designs and system tables that handle the Addin menu. I would suggest looking at [msdn.microsoft.com](http://msdn.microsoft.com) or other online technical resources if you need assistance in understanding the code.

## 12. Why does MDB Doc not document Access Data Projects (ADP files)?

Access Data Projects (ADP files) were a new feature introduced in Access 2000 that remove the Jet database engine, and the data is stored in a back end database such as the supplied MSDE (the cut down version of SQL Server, renamed SQL Server Express Edition in newer versions) or SQL Server itself. For MDB Doc to support ADP files would require a major rewrite of the entire application.

John Barnett

May 2019.