

BRAHMS installation and log in

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For further details about installation, connecting to data stores, database management and adding users with access permissions, please refer to the BRAHMS Guide:

https://herbaria.plants.ox.ac.uk/bol/content/software/v8/BRAHMS_Manual.pdf

Installation

Have an early BRAHMS test version?

If you have been evaluating BRAHMS and have no live databases to keep, we suggest you delete your current BRAHMS software folder, the BRAHMS folders under Documents and any test databases.

Prerequisites and .NET

BRAHMS operates under Windows or on Macs with Parallels, Virtual Box, Boot Camp or equivalent. Your installed Windows .NET framework version needs to be v 4.7.2 or later. If it is not, BRAHMS prompts you to upgrade. If you do have to upgrade .NET, it will be best to restart your PC after. As further discussed below, ideally your workstation will have 8GB of RAM or more. RAM is used by database applications for most operations.

Software folder location

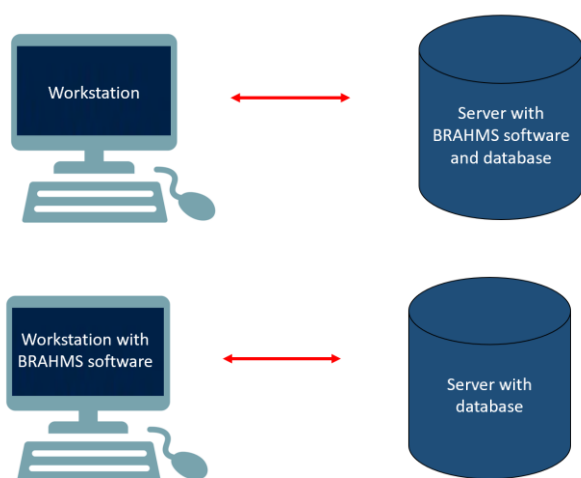
The BRAHMS software folder can be located on a drive that all users have access to, either through a share or via internet access. Alternatively, it can be installed on each local workstation/PC where it will be used. Otherwise, there are no restrictions of the location and/or name of the installation folder.

Disk space and memory requirements

For the complete system installation (including the ArcGIS and reporting runtime libraries, the training guide and other system components) you will need about 250 MB of disk space. This does not include the space required for your data. The demo conifer database requires about 100 MB.

RAM requirements are not strictly imposed. However, as with most database systems, the more RAM you have, the more efficiently the system will operate. Firstly, this needs to be considered for the server itself. For example, the more RAM MSSQL Server has, the better. The server database, independently from the BRAHMS software, will utilize available RAM for indexing, caching and querying. In Oxford, we use a server with 256 GB RAM although BRAHMS itself rarely uses more than 50% of this. If you are using a server database such as MSSQL Server, make sure the database has access to as much RAM as possible.

The RAM requirements also need to be considered for the workstation where you are running BRAHMS from, even if the software is stored on a separate server. Running BRAHMS on a poorly resourced workstation, even if your server is well resourced, will not give the best result. For average use, the workstation you are using should have at least 8GB RAM but ideally 16GB or more.



Whether the software is on the server (above right) or on the workstation (above left), both will benefit from being well-resourced.

Have you got your license key?

To open BRAHMS, you will need either an evaluation key allowing you to test the system for 60 days or a full license key. Both are obtained from [Oxford University Innovation](#) (OUI).

- Apply for evaluation key: <https://herbaria.plants.ox.ac.uk/bol/brahms/software/evaluations>
- Apply for license: <https://process.innovation.ox.ac.uk/software/p/14165/brahms/1>

The key you receive will be a long text string similar to:

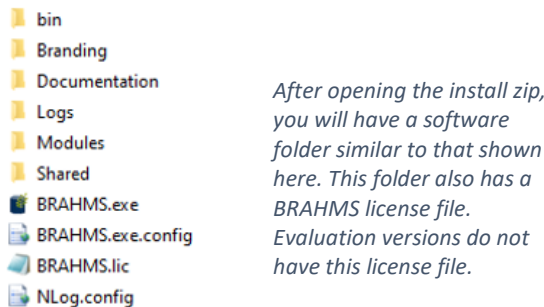
lgBAN8JkR7HNUBBQBmAE5hbWU9U29sYW51bSBQcm9qZWNO0iBSb3lhbCB3RhmJlEdhcmRIbnMgRWRpbnJ1cmdoIcGtmF0dXJhbCBlaXN0b3J5IE11c2V1bSNQdXJjaGFzZURhdGU9MDkvM123MjAxOQEPg4hL3jclbjaoucSgmBN7OliM2yDmE637gvJV/BArl5/UK0hY4ph84fKWap9q/XRG8inHEyTGa8w2vRoOvfGm=

This key text you will be sent by OUI is copied into the [licence form](#) when you first open BRAHMS.

Installing BRAHMS

The software is conveniently provided as a single (copy-deploy) zip file.

- Open the zip file to any location. **Do not use the default windows file extraction tool** as this may result in the blocked security status of some files. Please use 7z or similar.



Files/Folders	Notes
bin	Core application DLL and ArcGIS runtime files.
Branding	Branding banner image and other branding items as available.
Documentation	Getting Started PDF.
Logs	Daily log files and any application error files.
Modules	Application DLL files linked to specific modules.
Shared	Shared data connection files and some other shared files.
BRAHMS.exe, BRAHMS.exe.config, BRAHMS.lic, NLog.config	The main application exe file. System configuration files. The BRAHMS license file (evaluation systems do not have a license file).

Initially, no installation of additional database management software is required as BRAHMS is delivered with a default SQLite data store. Further information on using MSSQL Server or PostgreSQL is provided below.

Logging into BRAHMS

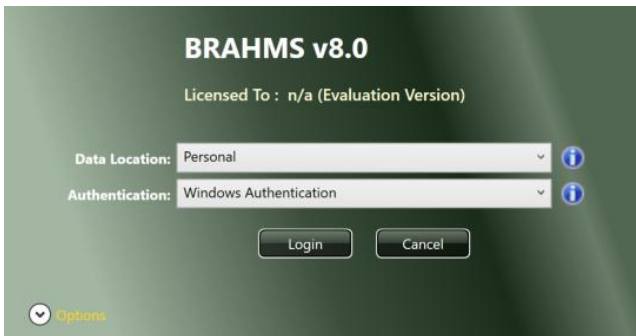
Brahms.exe and creating desktop shortcut

The top-level BRAHMS software folder contains the file brahms.exe which you run to start the application. You can create a shortcut to this in the normal way. The shortcut on your local desktop may point to the software in any accessible location, be this local or on a drive /server that you have access to.

At this stage, if prompted to update your .NET version, proceed to do this and preferably, re-start your PC.

Login to the personal data store

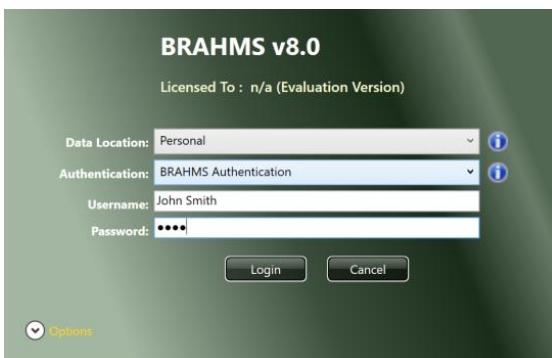
After installation, you must initially log into BRAHMS using the *Personal* Data Location. The system will initially default to **Windows Authentication** using your Windows identity and thus you do not need to add a password.



After installation, logging in using Window Authentication to the Personal database, no password will be needed.

When you first log in, the system auto-creates an empty SQLite data store called brahms.db in your Documents/BRAHMS folder. The folder itself is created automatically. This may be on your physical PC or on a network drive with roaming user profiles. In the latter case, you will be able to access it from different work stations.

If for any reason you cannot log in under Windows Authentication, change this setting to BRAHMS Authentication on the log in form. Choose any user name and a password. Passwords are case sensitive. In this case, the user name and password will be added to the BRAHMS user file. You must remember a BRAHMS user name and password.



Logging in using BRAHMS Authentication.

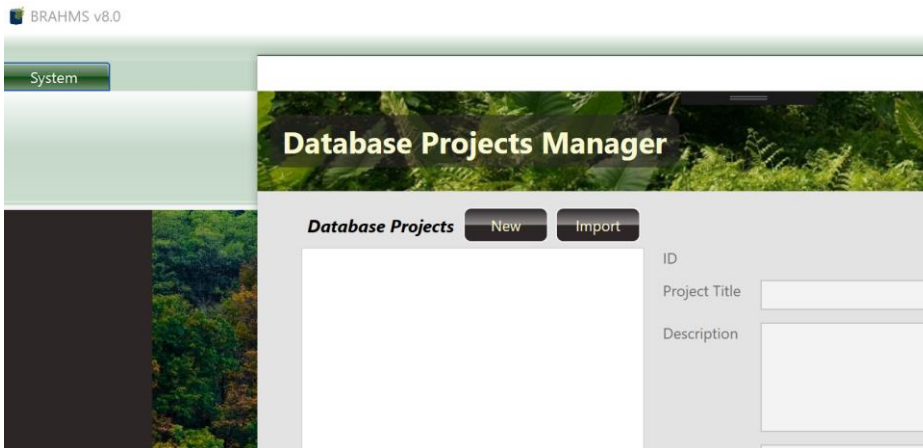
First log in and database ownership

The first log in to a newly created database assigns ownership to that database. Thus if you log in using Windows Authentication, your windows account will, initially, be the only way to open the database. Adding or editing different users is discussed in the users and permissions section of the guide.

The Database Projects Manager form opens

As initially, the default personal data store is empty (it has no database projects), the first log in will auto-open the **Database Projects Manager** screen with options **New** and **Import**. At this stage, you have three choices:

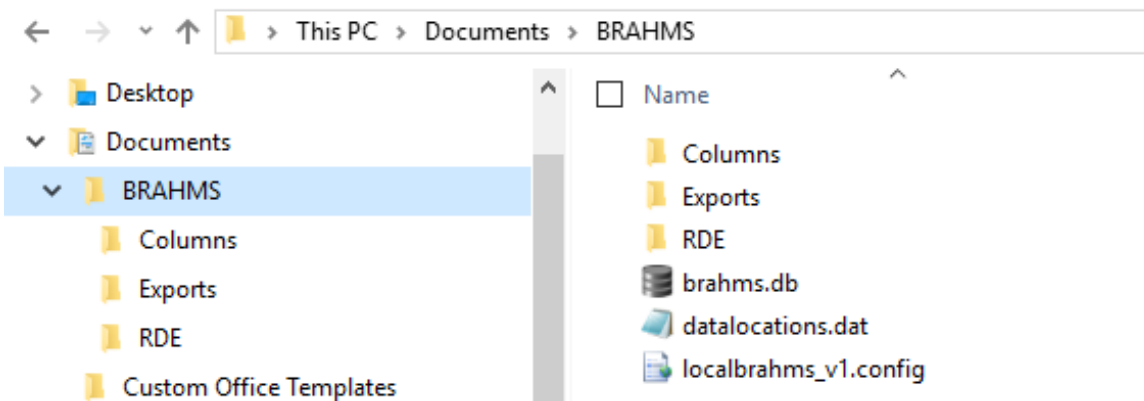
- Create a **New** database project.
- **Import** data from an XML folder you have been provided.
- Close this form and move on to connecting the demo or another database.



This form auto-opens when there are no database projects available in the current data store.







The Documents/BRAHMS folder

When you first log in, a folder called BRAHMS is created in your Documents folder. This is used for the default location of the empty brahms.db data store and some setup files.

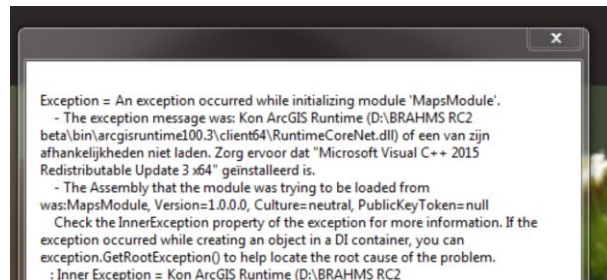
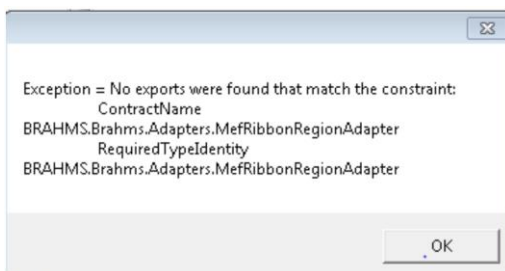


If you delete the BRAHMS folder, it will be recreated when you next log in.

File/Folder	Notes
brahms.db	The default SQLite datastore, initially empty.
datalocations.dat	Encrypted binary file storing connection strings (connections to data stores). All database project details (their names and descriptions) are stored in the data store itself. Once you connect to a data store, the database project(s) within the store are listed allowing you to choose a log in – unless there is only one database project in which case, it logs you directly in.

localbrahms_v1.config	User specific configuration file holding background image mode, tag highlight colours and a few other settings. Data are stored in JSON format.
Columns	<p>Visible column definitions are stored here as in the species file examples:</p> <ul style="list-style-type: none">  Full name and all calculated fields.speciesdataview.dgc  Full name with protologue.speciesdataview.dgc  RedList editing.speciesdataview.dgc <p>The .dgc extension refers to Data Grid Column. These files can be exchanged with other v8 users. Also stored are files with .lcv extensions. These store your used last column view per table.</p>
Exports	Any files exported from BRAHMS are stored here. This includes Excel and CSV files.
RDE	<p>RDE files are stored here by default – but you can set up separate RDE storage folders.</p> <ul style="list-style-type: none">  Dimorthanthera_taxonomy.rde  Field trip 2018_taxonomy.rde  The genus Inga_taxonomy.rde <p>Each .rde file is a self-contained SQLite database with the RDE file metadata, the data itself, image links and edit history.</p>

Troubleshooting on logging in



If the copy/deploy BRAHMS install zip is opened using the Windows default extraction, this may block access to some BRAHMS files. When logging in, you may see a message similar to the left-side screen above. The solution is to delete your BRAHMS software folder and then again open the zip file you have downloaded using 7z <https://www.7-zip.org/download.html> or another utility. Another possible explanation is your security system (e.g. anti-virus) requires you to include brahms.exe as a trusted exception.

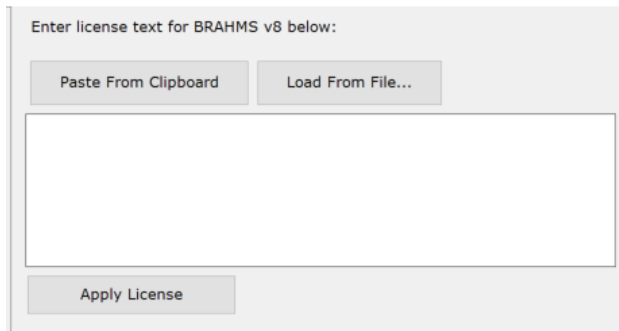
If the error is similar to the right-side screen above, you need to download the Microsoft Visual c++ 2017 redistributable as on: <https://social.msdn.microsoft.com/Forums/vstudio/en-US/e653a57a-bc32-4134-87bf-df33058f0531/download-microsoft-visual-c-2017-redistributable>

Licensing and software updates

Licensing

Licenses to use BRAHMS are provided by Oxford University Innovation (OUI). For further information, please contact brahms@innovation.ox.ac.uk. Evaluation licenses are normally for 60 days.

If you have received a license key from OUI, when you log into the software, simply copy the key into the license key form when prompted.



The screenshot shows a web form titled "Enter license text for BRAHMS v8 below:". At the top, there are two buttons: "Paste From Clipboard" and "Load From File...". Below these buttons is a large, empty text input field. At the bottom of the form is a button labeled "Apply License".

Software and database updates

Software updates are issued periodically. These may be to resolve reported problems or to issue additions and new features. Users who are within their license period are eligible to download all categories of software update.

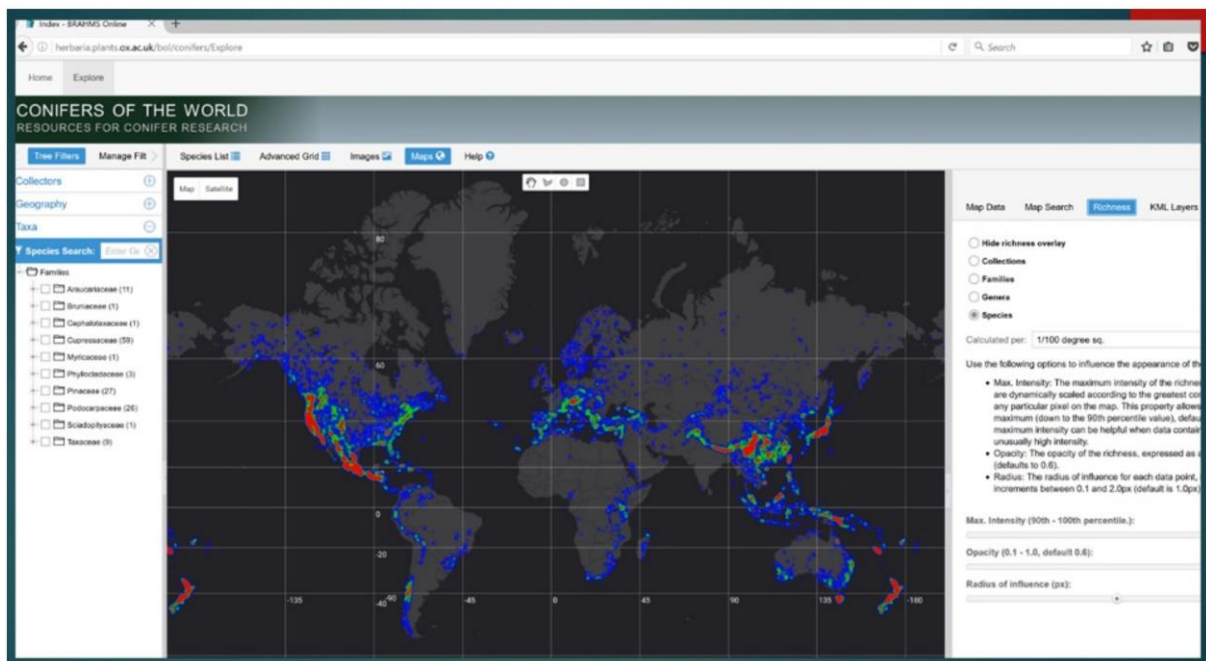
Notification of updates with a software download link are sent to all licensed users with a summary of the update content. The new software folder replaces the existing software folder. As soon as you log into any database, the system will inform you if database structural changes are needed. If databases changes are needed, you can then proceed to auto-update. The database update process uses scripts that are drawn from the BRAHMS website. You need to be online to use the update options.

If you have not updated your software for a longer period, several scripts may be needed and these are automatically run in the correct sequence. The same applies to RDE files. The entire update process is automated.

Connecting to the demo database

Introduction

The demo Conifer Database is available on: <https://herbaria.plants.ox.ac.uk/bol/brahms/support/conifers>



The conifer database has been provided by Aljos Farjon, RBG Kew. The conifer database includes all published conifer names with nomenclatural details, IUCN conservation codes, TDWG geographic distribution codes, species descriptions and more. It also includes specimen data across the group, almost all referenced for mapping. The database also includes sample living collections data from Oxford Botanic Garden.

The database has been used as the basis for: A taxonomic monograph on Pinus for Latin America (Farjon, A. & Styles, B. T., 1997. Flora Neotropica Monograph 75, The New York Botanical Garden; A World Checklist And Bibliography of Conifers, Aljos Farjon, 1998; A Monograph of Cupressaceae and Sciadopitys, Aljos Farjon, 2005; A Handbook of the World's Conifers. Publication: 2010; An Atlas of the World's Conifers, an Analysis of their Distribution, Biogeography, Diversity and Conservation Status, Aljos Farjon and Denis Filer: 2013.

Connecting to this sample database

Quickest approach

- Download the zip file from <https://herbaria.plants.ox.ac.uk/bol/brahms/support/conifers>
- Open the zip to create the file brahms.db
- Copy the file to your Documents\BRAHMS folder overwriting the default brahms.db file
- Log into Personal using the credentials:

Authentication:	BRAHMS Authentication
User name:	Demo (not case sensitive)
Password:	demo (lower case)

Connect to conifers in a different location

If you prefer to set up an entirely new connection to conifers, perhaps on a shared drive thus allowing multi-user access, follow these steps:

- Copy the downloaded demo database file to any folder location. You can optionally rename the file from brahms.db, for example to conifers.db.
- Select **System > Manage Data Connections...** then **New** and enter a connection name such as *Conifer Database*. The Connection Provider will be the default *Local Filesystem*.
- Use **Browse for an existing file** to navigate to the database file and then select **Save** and then **Done**.
- Sign out. When you next log in, change the Data Location to 'Conifer database' or as added above.



Browse to locate the downloaded conifer.db sample database - then save.

XML import option

If you would like to import the conifer database to another store type including MSSQL Server, you can do this by importing the conifer database XML. This will be provided on request.