

Recorder 6

Recorder 2002

Recorder 6 for Recorder 2002 Users

Sally Rankin JNCC Recorder Approved Expert
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1 Introduction

Recorder 6 has been developed to overcome the limitations of the capacity of *Recorder 2002*. It contains a number of significant enhancements, but the core functionality of *Recorder 2002* and *Recorder 6* is very similar and hence to the user, the two systems look more or less the same particularly with regard to data entry. Also, the data model, and hence the database structure, in the two systems is nearly the same but, in *Recorder 6*, the data is held in a Microsoft SQL Server database whereas in *Recorder 2002* it is held in a Microsoft Access 97 database.

JNCC gave the *Recorder* Approved Experts (Authorised Resellers in the *Recorder 2000* licence agreement) the go ahead to start supplying *Recorder 6* in September 2005. The first version to go on general release was version 6.6.8.59 but the latest version as at March 2009 is 6.13.3.182.

Recorder 2002 users are advised to consider moving to *Recorder 6* if they are approaching the capacity of *Recorder 2002* – approximately one million observations (records), encountering the ‘Out of memory’ errors that occur in *Recorder 2002*, having trouble with *Recorder 2002*’s reporting, or if they specifically need some of the new facilities in *Recorder 6*, such as the improvements to the Import Wizard for importing observations from Excel/text files, etc. The problems associated with reporting across taxonomic lists and reporting in taxonomic order are resolved in *Recorder 6* for most taxa.

This document is designed to highlight the differences between *Recorder 6* and its predecessor.

Like *Recorder 2002*, *Recorder 6* can be installed on a single computer or on a network but unlike *Recorder 2002*, different installation CDs are required for the two options. Separate installation guides are also available:

Standalone Installation Guide v3.1.doc

Network Installation Guide v5.1.doc

These can be found in the Documentation folder on both versions of the CD. Also in this folder is ‘Release Notes.doc’ and ‘Recorder 6 Report designer tutorial.doc’. These versions of the installation guides can also be downloaded via the links in the following post on the NBN Forum from Sarah Shaw on 25/09/07: <http://forums.nbn.org.uk/viewtopic.php?pid=2013#p2013>. This version of the

Network Installation Guide first became available on the version 6.10.4 installation CDs. It is a significant improvement on its predecessors.

The latest version of the installation CDs are labelled v6.13a but they install *Recorder 6* version 6.13.2.176 although the latest version is now 6.13.3.182. JNCC didn't issue installation CDs for this version so users need to install version 6.13.2.176 and then upgrade to 6.13.3.182 using the upgrade that can be downloaded from www.recordersoftware.org although it is better not to run any upgrades until you have transferred your data from *Recorder 2002*. The next version is due to be released in May or June 2009.

2 SQL Server / MSDE

Recorder 6 is a Microsoft SQL Server 2000 system but users who do not wish to buy SQL Server can run the system under MSDE (Microsoft SQL Server 2000 Desktop Engine) as a full license for SQL Server is expensive. MSDE is the free run-time version of SQL Server 2000 which is supplied on the *Recorder 6* install disk.

SQL Server 2005 became available sometime ago and *Recorder* users who have tried it have found that *Recorder 6* runs somewhat faster under it. SQL Server 2005 Express, the free run-time version of SQL Server 2005, will be supplied on the next version of the *Recorder 6* install disks instead of MSDE.

If you do not have SQL Server or MSDE on your system, a standard installation using a standalone or network installation disk will install MSDE and *Recorder 6* version 6.13.2.176. If you already have a SQL Server instance running you will be able to use it for your installation of *Recorder 6* – see the 'MSDE Settings' screen shot in the Standalone Installation Guide, or the 'SQL Server Selection' screen shot in the Network Guide. An Instance is a SQL Server database engine, i.e. a number of system and user databases that are administered as a group. Standalone installations are generally quite straight forward but to run the system on a network users need to ensure that they have access to the necessary expertise to support the use of MSDE/SQL Server.

There are some limitations associated with using MSDE, and certain users will require a full copy of SQL Server – see the Network Installation Guide for more information. The main limitations are the size of the database and the number of concurrent workstations. Microsoft restricts the size of a MSDE database to 2 GB whereas the maximum size of a SQL Server database is only limited by the hardware used. Also, performance of *Recorder 6* under MSDE will be degraded if there are more than five concurrent workstations on a network installation.

The maximum size of an Access 97 database, and hence the *Recorder 2002* database, is 1 GB and JNCC have estimated that the system will hold up to about one million observations (records), depending on the richness of the data stored. A *Recorder 6* database is bigger than this before any data is added: the *Recorder 6* database in a new installation of version 6.13.2.176 is 1.17 GB. *Recorder 6* running under MSDE will not, however, hold double the number of observations that *Recorder 2002* will hold. In *Recorder 2002* the dictionaries (taxon, biotope and admin areas) and the associated index files are held in separate Access 97 databases, nbndict.mdb, Index_Taxon_Group, Name & Synonym.mdb, whereas in *Recorder 6* these are in the same database as the observations and locations, etc., and therefore considerably reduce the space for observations and related data when using MSDE. Transfers from *Recorder 2002* to a new MSDE installation of *Recorder 6* version 6.10.4.120 without any dictionary upgrades indicate that the capacity of this version is around 700,000 observations. The capacity of version 6.13.3.182 running under MSDE will be less, mainly due to dictionary upgrades.

Using a version 6.13a installation CD users can install *Recorder 6* using a SQL Server 2005 Instance. The MSDE equivalent in SQL Server 2005 is called SQL Server 2005 Express Edition. It is available as a free download from Microsoft. If you wish to use SQL Server 2005 Express instead of MSDE you

must download and install it then select the SQL Server 2005 Express Instance when installing *Recorder 6*. Microsoft restricts the size of a SQL Server 2005 Express database to 4 GB, hence its capacity is much greater than MSDE. Users running *Recorder 6* under SQL Server 2000 are able to convert to running the system under SQL Server 2005.

Users are advised to have access to SQL Server tools. These come with SQL Server 2000, SQL Server 2005 and SQL Server 2005 Express but not with MSDE. They are needed for certain system functions, particularly managing permissions for network installations, but they can also be used for viewing and querying the *Recorder 6* SQL Server database. The tools provided with SQL Server 2005 Express are in software called SQL Server Management Studio Express which can be downloaded from a Microsoft web-site. This software can also be used with MSDE. Microsoft Access can be used to perform certain system functions if SQL Server tools are not available but this option is more complicated.

3 Hardware requirements

System Requirements for a standalone installation:

The following guidelines illustrate the specification of machines that will give reasonable performance in *Recorder 6*. It is possible to use lower specification machines although the performance is reduced. Using less than 256MB RAM on a machine running MSDE provides very poor performance in most cases.

Processor:	Intel Pentium 3 processor or later, 800MHz minimum
Memory:	512MB RAM
Hard disk:	3GB disk space minimum (10GB recommended)
Software:	Windows 98 (SP1) or later; Internet Explorer 5 or later

Note that when running *Recorder 6* on a laptop with 256 MB RAM some processes were found to take over twice as long as on a desktop with 512 MB RAM.

The hardware requirements for network installations are specified in the associated installation guide.

Please note that *Recorder 6* requires higher specification computers than *Recorder 2002*. It is unlikely that users will experience problems running *Recorder 6* on a fairly new computer but older computers may not be able to run it satisfactorily. A suitable back-up device should be available.

4 Installation

For standalone installations, please follow the instructions in the associated installation guide, paying particular attention to the instruction to leave the CD in the CD drive for the reboot after installation. If this is not done, the database will not be 'attached' and *Recorder 6* will not run.

Installing on a network is a more involved process and should only be attempted by someone who knows the network in question and is knowledgeable about such procedures. The Network Installation Guide should provide the information they will require but, in summary, the steps are:

- **Creating an instance of MSDE** – only required if an existing instance of SQL Server is not already available for *Recorder 6* to use.
Note that this stage must be performed directly on the database server – not via a workstation.

- **Creating the Recorder 6 database** (NBNDData_Data.MDF) and attaching it to the instance of SQL Server. Note that this stage must be performed directly on the database server – not via a workstation
- **Installing the Recorder 6 files on the file server.** This stage may be performed via a workstation
- **Performing workstation installations.** Prior to installation ensure that the workstation has a drive mapping to the file server. The mappings from each of the workstations should be identical. **Do not install using the CD.** Navigate to WorkstationSetup.exe in the Recorder 6 server folder and double click on it to install Recorder 6 on a workstation. This needs to be done on each workstation.

The first three steps are performed by inserting the installation CD, selecting 'Install Recorder 6 on your network' then selecting the appropriate option. For more details see the example network installation in the Network Installation Guide.

During a standalone or network installation, the install kit will pick up your Site ID from your Recorder 2002 system. If you do not have Recorder 2002 installed on the machine you are using to install Recorder 6 you will be asked to enter your Site ID and Verification key which are to be found on your licence agreement. Your Site ID uniquely identifies your copy of Recorder. The first half of the internal keys of all data entered to your system will be your Site ID. Thus, provided no-one else has used your Site ID (this would contravene the licence agreement), your data will have unique keys throughout all copies of the system and therefore can be exported to any Recorder system without fear of it overwriting data in the receiving system. Please keep your Site ID and Verification key safe. You will need them if you ever need to reinstall the system, e.g. if you buy a new computer.

The current CDs as at March 2009 will install version 6.13.2.176 of Recorder 6.

Please note that the network installation CD can be used to install the system on a standalone computer but not vice versa. The advantage of the standalone CD is that it does all 4 stages of the installation without the user being aware that there are different stages.

When Recorder 2002 is installed the following add-ins are installed with it:

- DMAP export
- Filter Results to Excel
- Location reports
- Display unchecked records
- Recorder 2000 Standard Validation

When Recorder 6 is installed using a version 6.13.2.176 CD, the two add-ins in \Install Files\Addins on the CD will be installed with it:

- **Display unchecked records** (ShowUnchecked.ocx) – filters on unchecked records in the observation hierarchy. Available on the Data Entry menu
- **Recorder 6 Standard Validation** (StdValLib.dll)

A number of other add-ins for Recorder 6 are on the installation CDs but the latest versions of them are available for download via <http://forums.nbn.org.uk/viewtopic.php?pid=3228#p3228>. Add-ins are pieces of software which add to the functionality of the system. They can be installed using **Tools – Install – Add-in Module....** The others on the installation CDs are:

- **Bulk load map files** (BulkLoad.ocx) – loads multiple map tiles
- **CIS Export** (CISExport2.ocx) – enables data to be exported to CIS
- **Delete survey** (Surveydelete.ocx) – allows users to delete whole surveys in the observation hierarchy
- **DMAP export** (DMAPServer.ocx) – enables data to be exported to DMAP. Note that there are problems with this add-in – see its ReadMe.txt file for details

GoTo grid (GoToGridControl.ocx) – centres the map on a specified grid reference when it is entered into the appropriate box at the bottom of the Map window

GoTo (Key) (GoToKey.ocx) – goes to a specific entry in the relevant hierarchy or list, e.g. a record in the observation hierarchy, when the internal key is known. Users can look up the internal keys of individual items using the ‘Show Metadata’ icon (circle with an ‘i’ in it). Available by default on the Tools menu

LastKey update (LastKeyUpdate.ocx) – updates the Last_key table

NBN Exchange (NBNExchange.ocx) – enables data to be exported in a format suitable for the NBN Gateway

Phenology (Phenology.ocx) – produces a phenology chart for a selected species

Recorder 3 Import (Recorder_3_Import_v6.ocx) – imports data from Recorder 3 provided it has been exported in the required format.

See the ReadMe.txt file in \Extra addins on the installation CDs for more details. Note that a ReadMe.txt file also accompanies each add-in. These contain import information about how to install and use the add-ins, and other details such as the fact that the **NBN Exchange** add-in doesn’t work with versions of *Recorder 6* prior to version 6.13.2.176.

Please note that installing *Recorder 6* usually knocks out the *Recorder 2002* add-ins and you then get error messages when starting *Recorder 2002*. If you click OK at each of these, *Recorder 2002* will start but, of course, the add-ins for which the messages appeared are not there to be used. To rectify this situation simply reinstall the add-ins that have been knocked out.

In *Recorder 2002*, the Import Wizard was an add-in that had to be installed before it could be used but this is not the case in *Recorder 6* – see Section 12 for more details.

Filter Results to Excel, i.e. the ‘Save as Excel’ button on the Filter Result in the Report Wizard, is replaced by a built in function on the Report Output menu on the Filter Result. Location reports, i.e. the ‘Report’ button on the Location hierarchy, is replaced by various XML reports.

5 The Recorder 6 database

5.1 The SQL Server database

Data entered into *Recorder 6* is stored in a SQL Server database usually called NBNDData_Data.MDF. In a standard standalone installation using an MSDE instance called RECORDER this will typically be found in:

C:\Program Files\Microsoft SQL Server\MSSQL\$RECORDER\Data
along with its associated log file NBNDData_log.LDF.

As explained in Section 2, NBNDData_Data.MDF contains all the tables from the *Recorder 2002* equivalents nbndata.mdb, nbndict.mdb, Index_Taxon_Group, Name & Synonym.mdb.

NBNDData_Data.MDF contains over 150 related tables. The design of this database is based on the NBN Data Model, documentation for which is available in the Documentation Wiki on the *Recorder 6* web-site www.recordersoftware.org. The links to follow are Main Page – Data Models (not Recorder 6 – Data Model). The SQL Server database can be viewed and queried using tools such as SQL Server Management Studio Express, although it should be noted that the database structure is very complex and will require time and effort to master. As with *Recorder 2002*, care must be exercised when using the database outside *Recorder 6* as users could easily alter the data in a way that will cause problems with running the system. Some such problems may prove very serious.

5.2 The linked Access database

Reporting in the system will meet many of a user's needs, but perhaps not all, so being able to supplement the reporting capabilities of the system via Microsoft Access may prove useful. Users of *Recorder 2002* were able to do this, so to enable them to use Access with *Recorder 6*, JNCC have provided an Access 97 database called NBNDData.mdb or nbndata.mdb in the *Recorder 6* Database folder. This should be created when *Recorder 6* is installed. It contains links to the *Recorder 6* SQL Server database and can be used in much the same way as using Access on the *Recorder 2002* database.

Please note that dates are handled differently in SQL Server. See the Documentation Wiki on the *Recorder 6* web-site www.recordersoftware.org for more information. The links to follow are: Documentation Wiki – Recorder 6 – Data Entry – Vague Dates.

Also note that it is not uncommon for a *Recorder 6* installation to fail to create a working version of NBNDData.mdb. A tool is available for creating it in these circumstances – please contact the supplier of your copy of *Recorder*, or any of the *Recorder* suppliers listed on the *Recorder* Software web site www.recordersoftware.org for details. Also, the Network Installation Guide recommends that it be removed if users are concerned about the security threat it poses.

5.3 ODBC connection

The database can also be accessed through an ODBC connection. For an example, see the article called 'Using the Reporting Snapshot Tool to link Recorder 6 to MapInfo' in the Documentation Wiki on the *Recorder 6* web-site www.recordersoftware.org. The links to follow are: Documentation Wiki – Recorder 6 – Third-party Tools.

6 Migrating from Recorder 2002 to Recorder 6

The *Recorder 6* installation CDs have a facility on them to transfer users' data from *Recorder 2002* to *Recorder 6*. The installation guides provide some information on the transfer process but more details are in a document called 'Guidance on transferring *Recorder 2002* data to *Recorder 6* version 6.13.2'.

In summary the procedure is:

- Install *Recorder 6* using the Site ID and Verification key for your *Recorder 2002* system
- Compact your *Recorder 2002* database. If this fails, clear the corruptions before proceeding
- Copy your data from *Recorder 2002* to *Recorder 6* as instructed in the above guide. If errors are detected details will be stored in UpgradeErrors.mdb in the Database folder in your *Recorder 2002* system
- Clear any errors related to user added data in UpgradeErrors.mdb in *Recorder 2002* and copy your data from *Recorder 2002* to *Recorder 6* again. Repeat this process until no errors are reported in user added data

You can then test *Recorder 6* to ensure you are happy to go live with it. As explained in the guide, *Recorder 2002* must remain the ONLY live system until you are ready to go live with *Recorder 6* as data entered into *Recorder 6* will be lost if you do the transfer again. If you would like assistance with your transfer please contact the supplier of your copy of *Recorder*, or any of the *Recorder* suppliers listed on the *Recorder* Software web site www.recordersoftware.org for a quote.

7 Upgrades

JNCC release upgrades to *Recorder 6* periodically. When they are issued they will be made available for users to download from the Downloads sections of the *Recorder 6* web-site www.recordersoftware.org. Please check this web-site from time to time for more information, or alternatively, watch for details in the *Recorder* section of the NBN forum – see the next section for details. As stated in the introduction, the latest version as at March 2009 is 6.13.3.182.

There are two types of upgrades to *Recorder 6*: software and dictionary upgrades. The Dictionary Upgrade kit was introduced with version 6.9.3.102 to enable software and dictionary upgrades to be issued independently. This means that a dictionary upgrade no longer has to wait for the next software upgrade. Dictionary upgrades come in the form of upgrade files that need to be placed in the Dictionary Upgrade Kit's Scripts folder prior to running the DictionaryUpgrade.exe file – see Download Dictionary Updates on www.recordersoftware.org for full details. If *Recorder 6* is installed using a version 6.13a CD the dictionary will contain all the updates in the upgrade files up to and including 0000000E.sql, but 0000000F.sql has come out since.

Release notes usually accompany each software upgrade. The release notes for version 6.13.2.176 can be found in the Documentation folder on the version 6.13a installation CDs. These list the changes and new features in the particular release/upgrade but for the new features there is more information in the Help in *Recorder 6* – see **Help – Help** which takes you to the opening page of the Help where there is a section headed 'Significant changes in *Recorder 6* version 6.13'. This lists all the new features with links to where full information about them is found. The release notes for version 6.13.3.182 are in the post on the NBN Forum by Lynn Heeley 14/11/08: <http://forums.nbn.org.uk/viewtopic.php?pid=3643#p3643>. Version 6.13 contains many new facilities which will be particularly useful to many users – please refer to the Help for details as only a selection of them are covered in this document.

The Help in *Recorder 6* also contains information on:

- Upgrading the software, see Help – Tasks on the Contents tab – Upgrading *Recorder*
- Updating the dictionaries, see Help – Tasks on the Contents tab – Dictionaries and term-lists – Updating the dictionaries and/or the instructions in the Dictionary Updates section of the *Recorder 6* web-site www.recordersoftware.org.

8 Documentation

As in *Recorder 2002*, the main source of documentation is the Windows style Help within the system. The Help menu item gives access to all the help via standard Contents, Index or Search tabs. Alternatively, the function key F1 for context sensitive help, will open the Help at the topic appropriate to the window in which the cursor is currently located, although this doesn't yet work consistently.

Details of the new features and updates in *Recorder 6* can be found under Version history on the first page of the help – see **Help – Help**. Topics of particular note are mentioned elsewhere in this document.

JNCC operate a forum to enable users to exchange information about *Recorder* and the NBN. It can be accessed at <http://forums.nbn.org.uk>. It replaces the *Recorder* e-group that was in operation from September 2003 onwards but became unreliable in that not all the e-mails sent to it were received by other members of the group. JNCC announce upgrades on this forum.

A useful document on *Recorder 6* can be downloaded using the link in the post on the NBN Forum by Sarah Shaw 1/05/07: <http://forums.nbn.org.uk/viewtopic.php?pid=1584#p1584>. It was written as a training handout by Stuart Ball at JNCC as part of the project they did in the Falklands early in 2007 but most of it is equally applicable for the UK. It was designed for new users but many existing users may also find it helpful.

The Help in *Recorder 6* contains much useful information but unfortunately not all of it has been updated satisfactorily for each release. JNCC is working to correct its shortcomings with significant improvements in the last two major releases. If the Help does not display correctly in your system please contact your supplier for details of how to correct this problem.

Further information is available on the *Recorder 6* web-site www.recordersoftware.org. A Documentation Wiki for *Recorder* can be accessed from this site which, although far from comprehensive, does contain some useful information.

9 The Taxon Dictionary

At installation, there are 215 checklists in the taxon (species) dictionary in *Recorder 6* version 6.13.2.176, 208 in versions 6.10.4.120 and 6.9.3.102, 199 in version 6.7.2.77, 181 in version 6.6.8.59 and 182 in *Recorder 2002*. The full BEETLES list was added in version 6.10.4.120. The latest dictionary upgrade, 0000000F.sql, doesn't add any further lists.

It is not necessarily obvious which taxon dictionary list to use in different circumstances. In *Recorder 6*, as in later versions of *Recorder 2002*, JNCC grouped together those checklists that they believe are most useful for entering current observations at the beginning of the drop down list of checklists in the taxon dictionary. They also re-named these lists to make it easier to see which taxa they contain – their official name has been preceded by the name of the taxon for which they are appropriate in capital letters, e.g. VASCULAR PLANTS. These are referred to as the preferred lists and, in *Recorder 6*, they can be searched as a group in several places.

A 'Restrict Searches to' box was added to the Find Taxon dialogue box when it is used to search the dictionary itself in version 6.13.2.176. This is a significant improvement to dictionary searches as it means that users no longer need to select the required dictionary list prior to doing their search. If this is set to 'Current Checklist' and nothing is returned the user can simply change it to 'Preferred Checklists' or 'Unrestricted' to widen the search. When the required taxon is selected from the list of matches the system opens the dictionary list that contains it. This facility is also available when entering data, as in *Recorder 2002*, although the option to select 'Preferred Checklists' is new in *Recorder 6*. The required option can also be set on the General tab for **Tools – Options**. Also, if '**Enable partial name search for taxa**' is ticked on the General tab in **Tools – Options**, you can search for taxa using a variable number of letters from different parts of the name, separated by a space, e.g. 'prim vulg' – see **Help – Search** tab – **Finding Taxa** for full details.

As in *Recorder 2002*, if the required taxon is not on any lists it can be added to the dictionary using **Dictionaries – Edit Taxon Details**, but it must be remembered that species added in this way are classed as user added taxa and observations for user added taxa cannot be exported.

A number of structural changes have been made to the taxon dictionary including the introduction of the NameServer table to enable better translation across lists. This combined with the additional fields in the Index_Taxon_Name table such as the recommended preferred name and a standard sort order enable the Report Wizard to work correctly for most taxa when observations have been entered using different lists. In version 6.10.4.120 the NameServer table was very nearly populated for all taxa. Where NameServer is not populated for taxa on certain lists, observations entered using these, may be excluded from reports depending on how the report is done. Entering as much data as possible using the preferred lists or the Recorder 3.3 list will help avoid such problems

10 Data Entry

The main difference between data entry in *Recorder 2002* and *Recorder 6* is the ability to restrict the searches for taxa to the preferred lists. As described in the previous section, this can be done via the General tab in **Tools – Options** or via the Find Taxon box that appears when finding taxa, either for data entry or in the dictionary itself.

The ability to assign tags to surveys so that they can be grouped together into folders in the observation hierarchy was introduced in version 6.13.2.176. For details follow the links in the appropriate topic under the heading ‘Significant changes in *Recorder 6* version 6.13’ on the opening page of the *Recorder 6* Help.

Many checklists, e.g. the Priority Species List (2007), the Red Data Book and Wildlife and Countryside Act lists, provide taxon status information for use in reporting. In *Recorder 6*, these cannot be used for data entry.

An Ownership tab on Survey Events allows users to record who owns, funds or has the copyright of the data. The Survey Event Owner Type is a term list that users can add to in the usual way.

Recorder 6 enables users to compile a list of keywords that can be assigned to Documents in the Document list. The window is accessed by selecting **Tools – Enhanced Termlists** from the Main menu. Once keywords have been added to this list they can be added to documents using the new Keywords tab in the Documents list. Having added keywords to documents it is then possible to search for documents with particular keywords using the ‘Search for Reference Keywords’ box that has been added to the Find Document dialogue box. See Help for more information.

As well as these changes there have been significant changes to the Import wizard – see Importing Data.

11 Reporting

The reporting capabilities have been improved in *Recorder 6* in various ways:

11.1 Report Wizard

The Report Wizard in *Recorder 2002* works on a single SQL statement; which makes it very inflexible. The new report wizard uses multiple SQL statements making it more powerful. It also means that users will no longer get out of memory errors when they attempt complex reports. For example, reporting on observations in large accurately-drawn polygons, like vice counties, works in *Recorder 6*.

The dictionary changes mentioned above mean that reports for taxa are unlikely to leave out observations that should be included because of the dictionary list that was used to input them. Also, reporting in taxonomic order works much better than it does in *Recorder 2002* when observations have been input using multiple lists, provided the attribute ‘Recommended Taxon Sort Order’ is used, not ‘Taxon Sort Order’.

In *Recorder 6*, more attributes can be included in reports so they have been arranged in a hierarchy to make them easier to select, with Event, Observation, Sample, Survey and Taxon at the top level. Also, the attributes and sort order are stored with report layouts and a layout(template) is selected earlier in

the process. This means that the attributes and sort order do not need to be specified if an existing layout is to be used for a report as these are ‘remembered’ from when the layout was designed.

When including measurement data from observations in *Recorder 6*, observations only appear in the filter result once, whereas in *Recorder 2002* they appear once for each set of measurements on them. In *Recorder 6*, users can select the attribute ‘Obs Abundances (LC)’ in the Observation group to have measurement data output as a comma separated string. Alternatively, they can opt to have a separate column for each measurement qualifier by selecting the required qualifiers in the Measurement group within the Taxon group when selecting the attributes. Unfortunately, this requires that users know what qualifiers have been used for the observations to be included in the report. Similarly with other measurement data and species status. Significant improvements for status reporting are planned for the next release.

When you reach the Filter Result the options available are accessed via the Report Output button, some of which were also available in *Recorder 2002* albeit in a slightly different form. These include options to:

- Print the grid

- Copy the data to the Windows clipboard

- Send the data to the map to produce a distribution map

- Revalidate Items – new in version 6.13.2.176

- Export the data for importing into another copy of *Recorder*

- Export to Excel ... which replaces the Save as Excel button in *Recorder 2002*

- Export to Google Earth ... – new in version 6.13.2.176

- Export to ESRI Shape File ... – new in version 6.13.2.176

- Export the data to other formats

- Run Report Template (layout) produces a print preview using the layout selected in the Layout Selection window

- New Report Template (layout) opens the Report Designer

- Edit Report Template (layout) opens the layout selected in the Layout Selection window in the Report Designer for editing

- Run Snapshot runs a snapshot created previously

- New Snapshot opens the Snapshot Tool so that a new snapshot can be created

- Edit Snapshot opens an existing snapshot for editing

11.2 Snapshot tool

The Snapshot Wizard in *Recorder 6* can be used to produce a simpler version of the database containing a subset of the observations. This can be used for reporting by other packages, such as Microsoft Access, GIS software or Crystal Reports. The Snapshot Wizard allows the user to output the data to a new table (or tables) in the existing database, to a different database or even to a different server. The user can choose to have anything from 1 to 8 tables in the snapshot depending on how they want the data organised. First, the Report Wizard is used to select the records that are to be included in the snapshot, then options on the Report Output button are used to create a new snapshot or edit or run an existing one.

For further information see the section headed ‘Creating a reporting Database’ in the Standalone Installation Guide. Some other options are listed in a section of the same name in the Network Installation Guide. For an example of using a snapshot with other software, see the article called ‘Using the Reporting Snapshot Tool to link Recorder 6 to MapInfo’ in the Documentation Wiki on the *Recorder 6* web-site www.recordersoftware.org. The links to follow are: Documentation Wiki – Recorder 6 – Third-party Tools.

11.3 XML Reports

In *Recorder 6*, there is a new mechanism for creating reports which uses SQL statements within a standard XML structure. This method allows users to create reports and share them with others. It is similar to the SQL Reports add-in in *Recorder 2002* but it is more powerful and the reports can be shared more easily. The SQL Reports add-in isn't available in *Recorder 6* but its queries can be converted into XML reports. A variation on XML reports called XML batch updates can be used to make changes to the database.

For a brief introduction to writing XML reports see Help – Tasks on the Contents tab – Reporting – XML reports. There is, however, much more information on the Documentation Wiki, and Mike Weideli, another JNCC *Recorder* Approved Expert, has made more available via the link in his post on the forum on 6/07/08 – <http://forums.nbn.org.uk/viewtopic.php?id=686#p3058>. When designing XML reports users can incorporate functions that format *Recorder* data in a more appropriate manner for reporting. A selection of these are listed at the end of the Network Installation Guide and Mike's documentation contains more.

XML reports can be run by selecting **Reports – Run** or **Quick Report** from the Main menu, then selecting the required report from the hierarchy that is displayed. Depending on how they have been designed, some of them can be run by selecting an item in one of the main windows, e.g. a location in the location hierarchy, right clicking on it then selecting **Quick Report** and then the required report. For more information see Help – Tasks on the Contents tab – Reporting – Running reports.

In *Recorder 2002*, the Location Report add-in placed a Report button at the bottom of the location hierarchy that could be used to produce a summary report for the selected location or a species list. In *Recorder 6* this has been replaced by the following XML reports:

- Site Summary Report V06-12.xml
- Detailed species list V06-12.xml
- Quick species list (including subsites) V06-12.xml
- Quick species list V06-12.xml

Although useful these suffer from some shortcomings compared with the *Recorder 2002* equivalent.

12 Importing data

In *Recorder 2002*, users wanting to import records from Excel spreadsheets, csv files, text files or MapMate had to install the Import Wizard, but in *Recorder 6* there is no need to install it as it is built into the system. To use it, select **Tools – Import Data** on the main menu, navigate to the folder containing the file to be imported, set 'Files of type' to the required file type, and select the file to be imported. This will start the Import Wizard. Selecting NBN Data (*.xml) or NBN Access Database (*.zip) will enable you to import data from another copy of *Recorder 6* or *Recorder 2002*.

The Import Wizard in *Recorder 6* contains many enhancements that are not in the *Recorder 2002* version. It will import:

- data from a wider variety of file types than *Recorder 2002* – see the 'Files of type' drop down box
- more different types of data – see Help – Tasks on the Contents tab – Exchanging data – Import data – Import Wizard – Data format. Note that the list of supported columns isn't complete as more were added after the last round of changes to the Help
- multiple recorders for observations

- multiple sets of abundance data for observations – see Help – Tasks on the Contents tab – Exchanging data – Import data – Import Wizard – Abundance data

It also allows users to import selected rows from an import file and to filter on rows containing errors. The later makes invalid data easier to locate and correct. In *Recorder 6* more data can be corrected in situ.

The help has been updated to provide more information on importing data generally, e.g. handling duplicate and invalid items when importing data from other copies of *Recorder 6* or from Excel files etc. – see Help – Tasks on the Contents tab – Exchanging data – Import data – Analysis and Import / Duplicate items / Invalid items. Analysis and Import also contains information on rejected items.

13 Exporting data

When exporting data to be imported into another copy of *Recorder* it is recommended that the Export Type of NBN Access Database (zipped) is used. This method produces a smaller file that exports and imports more quickly. The exception to this is when data is to be exported from *Recorder 6* and imported into *Recorder 2002*. In this case it is necessary to use the Export Type of NBN Data because this option creates an .xml file which copes with the differences in data structure whereas the zipped database option does not.

Data that has been imported into *Recorder 2002* from another copy of the system cannot be edited because the sending system is the custodian of the data and only the custodian can edit data. However, in *Recorder 6* the custody of the data can be reassigned to another Site ID when exporting it by ticking the ‘Reassign Data Custody’ box on the **Tools – Export Data** window and specifying the Site ID of the copy of the system custody is to be transferred to, etc. Note that custody can only be reassigned for data that is ‘owned’ by the exporting system and once reassigned it will not be possible to edit the data in the exporting system.

Confidential data can be exported in *Recorder 6*, if required. To indicate that this is required tick the appropriate box on the General tab in **Tools – Options**.

In versions 6.13.2.176 onwards, data is revalidated on export and invalid items are excluded from the export. If users want to revalidate data prior to exporting it they can, for example, revalidate a whole survey by selecting it in the observation hierarchy, right clicking and selecting Revalidate Record. If there are any invalid items they will be listed with the option to save the details or view the results. To help avoid data becoming invalid changes to dates and location information in the observation hierarchy can be cascaded, e.g. if the data in a survey event is edited the system will also change the date in its sample(s) and taxon determination(s), if required.

14 Transferring database custodianship (edit rights)

As well as being able to transfer custody of a set of records that are being exported users can transfer custody of an entire database using **Tools – Database Tools – Reassign Database to new Custodian**. This may be useful when:

- A recorder who has decided to stop recording wants to donate their dataset to their local record centre or recording scheme.
- A contractor does a piece of work and hands over the resulting records.
- A recorder may pass their data to their county recorder for inclusion in a collated database and be happy to pass custodianship as well.

To transfer custody you need to know the 8 figure Site ID of the copy of *Recorder* you are transferring custodianship to. This is the Copy Identifier displayed in the Welcome screen in that system, which can be displayed using **Help – Summary Info**.

15 Mapping

The mapping facilities in *Recorder 6* are provided by a commercial library of mapping routines called *MapServer 5* whereas in *Recorder 2002* they are provided by *MapServer 4*.

In *Recorder 6*, it is possible to have multiple base maps loaded so that users can swap from one to the other without having to reset the maps. This is particularly useful for people who need to report on British and Irish observations using the two different national grids. The required base maps are set up using **Map – Map Options – Enabled Maps – Add**. In version 6.13.2.176, an additional base map was supplied: ‘Great Britain and Ireland outline base map’.

The **Map Navigator Tool** on the Map menu enables you to navigate to a specific polygon in the Map Window. If you have drawn or imported polygons, and associated them with locations in your location hierarchy (optional) you will be able to use this tool to view a particular polygon.

If locations have been associated with a polygon on one of the map layers, a new icon just above the Cancel button on the Location Grid Squares Tab can be used to ‘Automatically extract grid squares from the associated location boundaries’. This facility is also available on the Map menu.

Please note that towards the end of the latest version of the Network Installation Guide there is a useful section that describes how the mapping works.

16 Database Tools

The database tools in *Recorder 2002* include options to compact and repair the databases. These are functions for Access databases and hence are not applicable to *Recorder 6*. The equivalent of Compact in a SQL Server environment is ‘Shrinking’ the database. For more information see the Optimisation section in the Network Installation Guide.

16.1 Backups

To back up your database in *Recorder 2002*, you could simply copy the nbndata.mdb file to another location. This is not the case in *Recorder 6*, the database cannot simply be copied and pasted to a new location, so to facilitate backups, additional functions have been provided:

Tools – Database Tools – Backup Database

Tools – Database Tools – Restore Database

Tools – Database Tools – View or Change Backup Location

In a standard standalone installation, a backup done this way will be a file called NBNBackup.bak stored in the Temp folder for the user who installed *Recorder 6*, e.g. C:\Documents and Settings\Sally Rankin\Local Settings\Temp, however this may vary. Also, users can change this using the option to change the backup location. This facility specifies where *Recorder 6* is expecting to place the backup which needs to be consistent with where SQL Server is expecting to place it. Note that because of its size a backup will need to be zipped before it can be written to a standard CD.

In SQL Server systems, for security purposes, it isn't possible to do things like take copies of databases while they are attached to a SQL Server instance. If users need to take a copy of their database, e.g. to transfer to a new computer or to seek help with diagnosing problems, they must first 'detach' it from the SQL Server Instance. On the new computer or when the database has been returned to them they would then need to 'attach' it. *Recorder 6* won't run while the database is detached. SQL Server tools such as SQL Server Management Studio Express are needed for these functions. As mentioned at the end of section 2 this software can be downloaded from a Microsoft web-site. An alternative would be to use the backup and restore facilities in *Recorder 6*.

SQL Server itself provides other options for backing up the database, e.g. automatic backups can be scheduled through SQL Server if you have the appropriate tools. For more information see the section headed Backup and Restore in the Network Installation Guide.

Written by Sally Rankin, JNCC *Recorder* Approved Expert, November 2007
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Sally Rankin, 16 Coldharbour Close, Henley-on-Thames, Oxfordshire RG9 1QF
Telephone: 01491 578633
Mobile: 07941 207687
e-mail: s.rankin@btinternet.com