

Installation Instructions for Osteoware™ Beta

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Questions? Please do not hesitate to post a message on the Osteoware support forum if you have any problems, find a bug, or need more details. The Osteoware support forum is found on the Osteoware website <http://www.osteoware.si.edu>

SECTION 1: Basic *Osteoware* Install

1-0 *Osteoware* Beta Requirements:

Windows XP™ through Windows7™ operating systems. MacOS™ 10.5 using a Boot Camp partition or Parallels Desktop™ virtual operating system. At this time the installation of *Osteoware* beta is hands-on, but is relatively simple to accomplish. We are working on a one-step installation routine, as is used by most Windows software you install.

1-1 Download the Software:

Please navigate to the *Osteoware* website <http://www.osteoware.si.edu> and go to the **Software Downloads** page.

1-2 Click on the ‘*Osteoware* Software Download (ZIP)’ file:

PLEASE NOTE: As an aside at this time, there are other support files and links to software on the download page. The *Osteoware* database utilizes the **Sybase® Advantage Data Architect™** database management system (DBMS), which is a freeware download available from the links provided.

The **Advantage Data Architect 9.1** and some basic structured query language (SQL) skills are all that are required to manage, query, and extract data from the *Osteoware* database. The **Advantage ODBC Drivers** (Open Database Connectivity) are useful should you choose to use or create another application to query and make reports, but are otherwise not required for regular use.

The **Advantage Data Architect** is not necessary to install at this time if you are simply testing *Osteoware* to see if it suits your needs, since once installed, the *Osteoware* folder itself contains all the necessary database tables in the **Protdata** folder within the *Osteoware* software folder.

Should you decide to enter your own real data into *Osteoware* (rather than simply using the provided test data for trial entries), then **Advantage 9.1** is required and instructions for that advanced installation will follow in **Section 2 and Section 3** further into this document.

At this time get *Osteoware* beta installed and running and let us know if you have any issues.

1-3 Unzip the download:

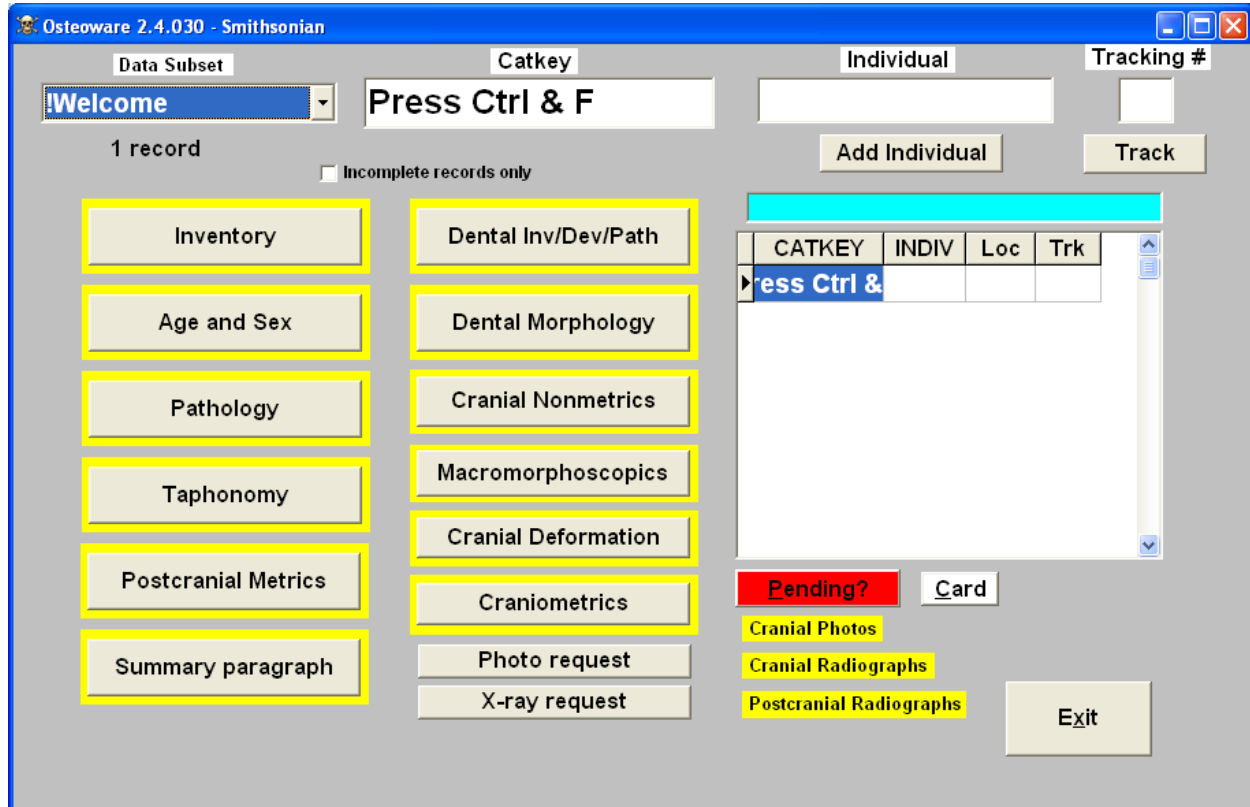
Unzip or unpack the compressed file to your desktop. **7zip** is a free file unpacking utility if you need one, and is available here: <http://www.7-zip.org/download.html>

1-4 Install *Osteoware*:

Take the resulting unpacked ‘*Osteoware*’ folder and simply drag it onto your C-drive, making sure to not inadvertently put it into one of the other C-drive system folders.

Go into the *Osteoware* folder and scroll down the list to find the **ProtMenu2.exe** file. This is the executable file to start up the graphic user interface (GUI) of *Osteoware*. Right click on the **ProtMenu2.exe** file and choose ‘Create shortcut’. A shortcut to the executable file will now

appear at the end of the folder's file list. Drag the short cut to your desktop, rename it 'Osteoware 240-xx' (where xx is the version number as seen in your download) since this will help keep track of the beta version you just installed. Double click to initialize the program. The *Osteoware* beta home page should open and look like this:



1-5 Using Osteoware:

The Osteoware user manual and educational website/online support forum are works in progress, and have been funded by grants from the Smithsonian Institution Web 2.0 Fund and the National Center for Technology Preservation and Training (NCPTT).

The Osteoware website provides a basic introduction and user resource. The software User Manual (in two volumes) is in the process of completion, so explore and click all the module buttons and drop down lists you see! Many of the choices in the 'Pathology Module' in particular are contextually driven based on bone or element type. I think you will find Osteoware quite intuitive to learn.

SECTION 2: Advanced Install of Advantage Data Architect™

PLEASE NOTE: This is an advanced step in the process of installing *Osteoware* to its full potential. Please do not conduct the following steps until you are sure *Osteoware* is running on your system, otherwise we will not know how to resolve any beta related issues between the *Osteoware* GUI and your operating system.

Also approach the following steps with caution unless you have complete confidence in your computer and software installation skills.

Installing the **Advantage Data Architect** will allow you to begin entering actual site names, burial or feature numbers, and other provenience information. However, while we do not anticipate any stability issues (*Osteoware* has been running and successfully storing and managing Smithsonian Institution Repatriation Office osteology data for about 10 years), please be aware that during this beta stage we cannot anticipate any future problems. **Use caution, and back up your data often.**

2-1 Download Advantage Data Architect™:

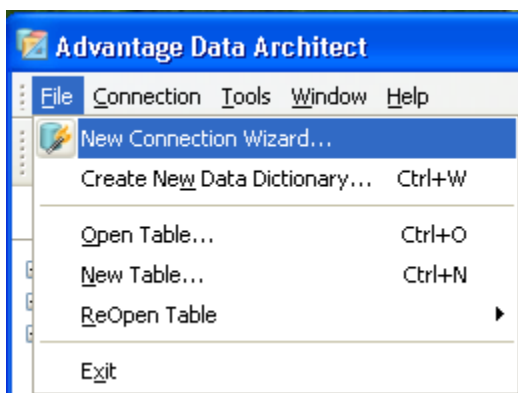
From the Osteoware website <http://www.osteoware.si.edu> download **Advantage Data Architect 9.1**

2-2 Install Advantage Data Architect™ :

Double click on **arc32.exe** and follow the install prompts and other directions. You may need to be an administrator on your computer. If you have any difficulties, consult with your institution's IT support.

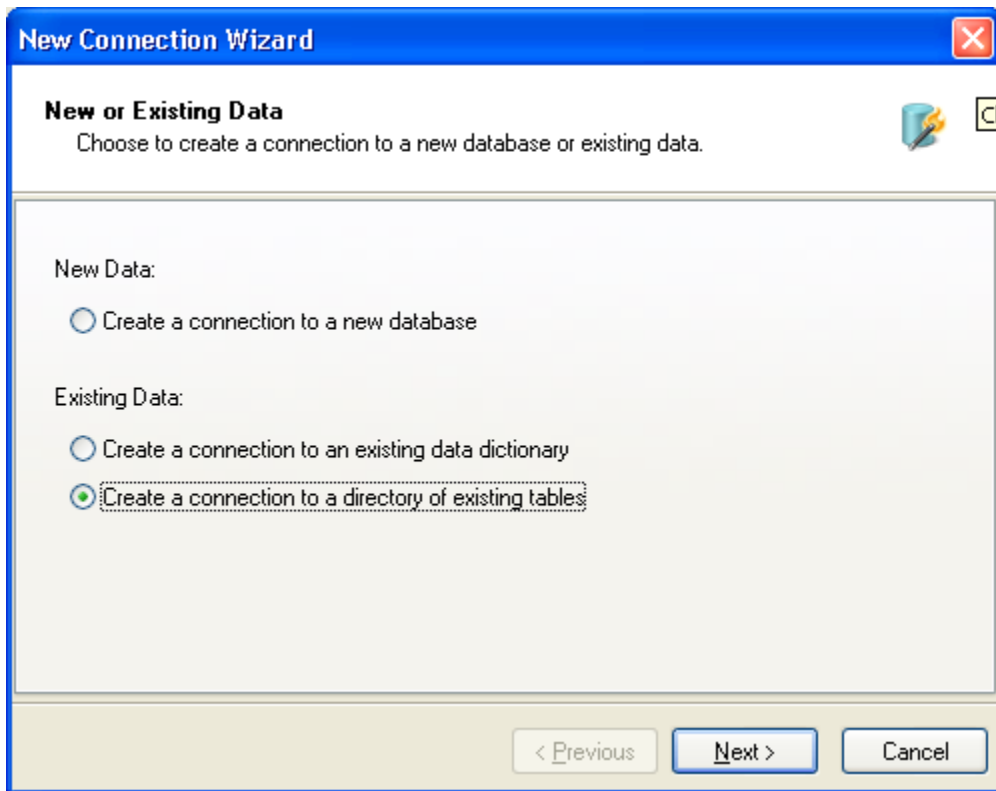
2-3 Open Advantage Data Architect™ :

Open the **Advantage Data Architect** program from the shortcut on your desktop and click on '**File\New Connection Wizard**' or '**Connection\New Connection Wizard**' from the menu bar.



2-3 Open Advantage Data Architect™ (continued):

From the choices listed under the tool bar select 'Create a Connection to a directory of existing tables' then click 'Next'.



2-4 Provide a Database Name:

Provide an overall name such as 'Osteoware' for your database. Do not use a site or geographic specific name for the database. One database (including its component data tables) will encompass all of your osteology data management needs from multiple sites.

Within the database master table (**CaseListProtInvt.adt**) found in the Osteoware folder is a data field for site names or other regional/geographic divisions. There are significant data query reasons for not having separate databases for each site that you excavate or collect data.

Connection Details	
DatabaseName	Osteoware
ConnectionPath	
ServerType	local
CommunicationType	default
TableType	adt

Enter the name you want to give this new connection in the Connection Repository.

< Previous Finish Cancel

2-4 Provide a Database Name (continued):

Click 'ConnectionPath' and then 'Browse for Directory' ...

New Connection Wizard

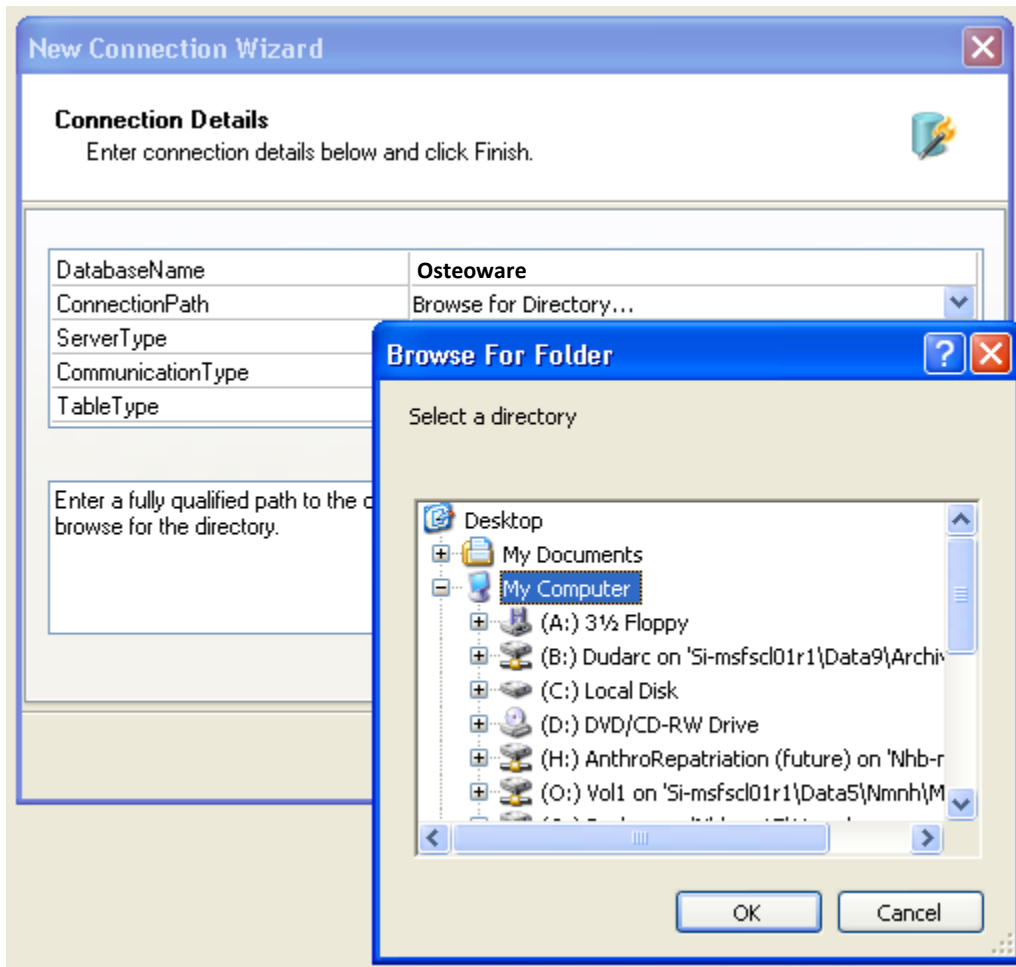
Connection Details
Enter connection details below and click Finish.

DatabaseName	Osteoware
ConnectionPath	
ServerType	Browse for Directory...
CommunicationType	default
TableType	adt

Enter a fully qualified path to the computer where the data files exist. Click the arrow if you want to browse for the directory.

< Previous Finish Cancel

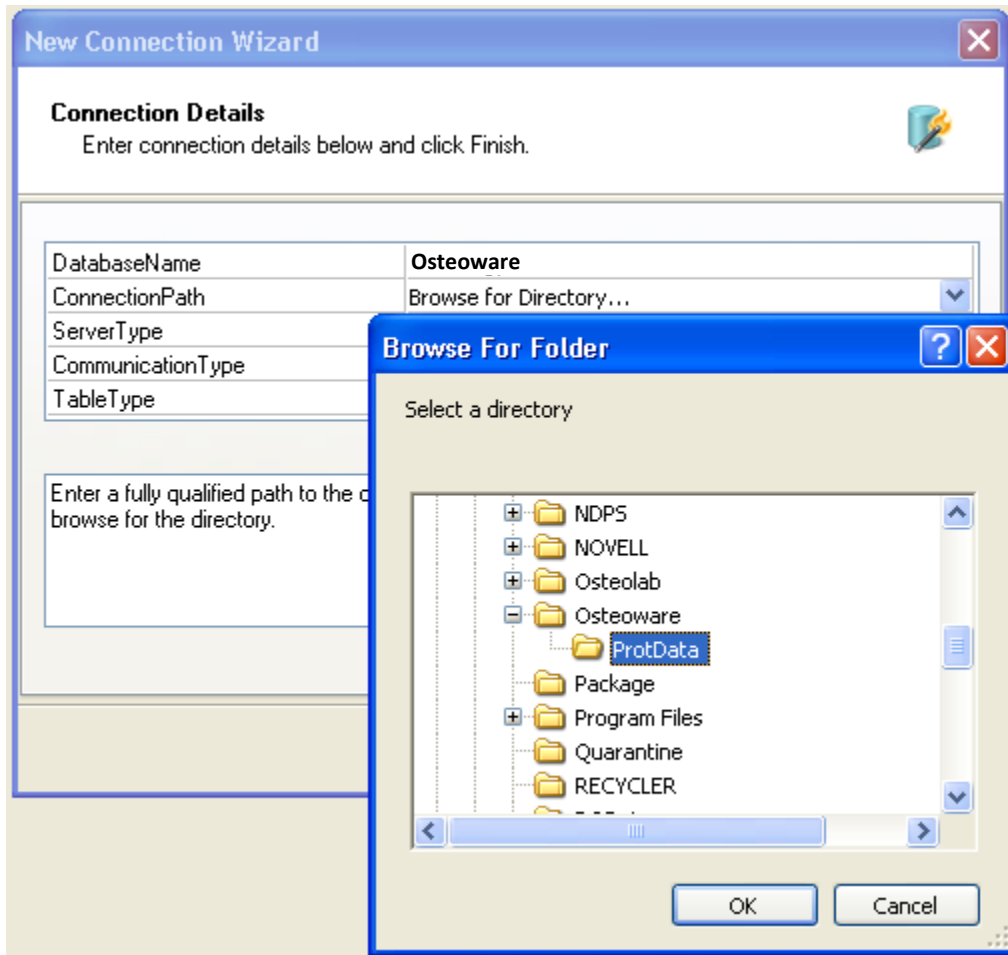
2-4 Provide a Database Name (continued):
... and navigate by the drop down lists to 'My Computer'...



2-4 Provide a Database Name (continued):

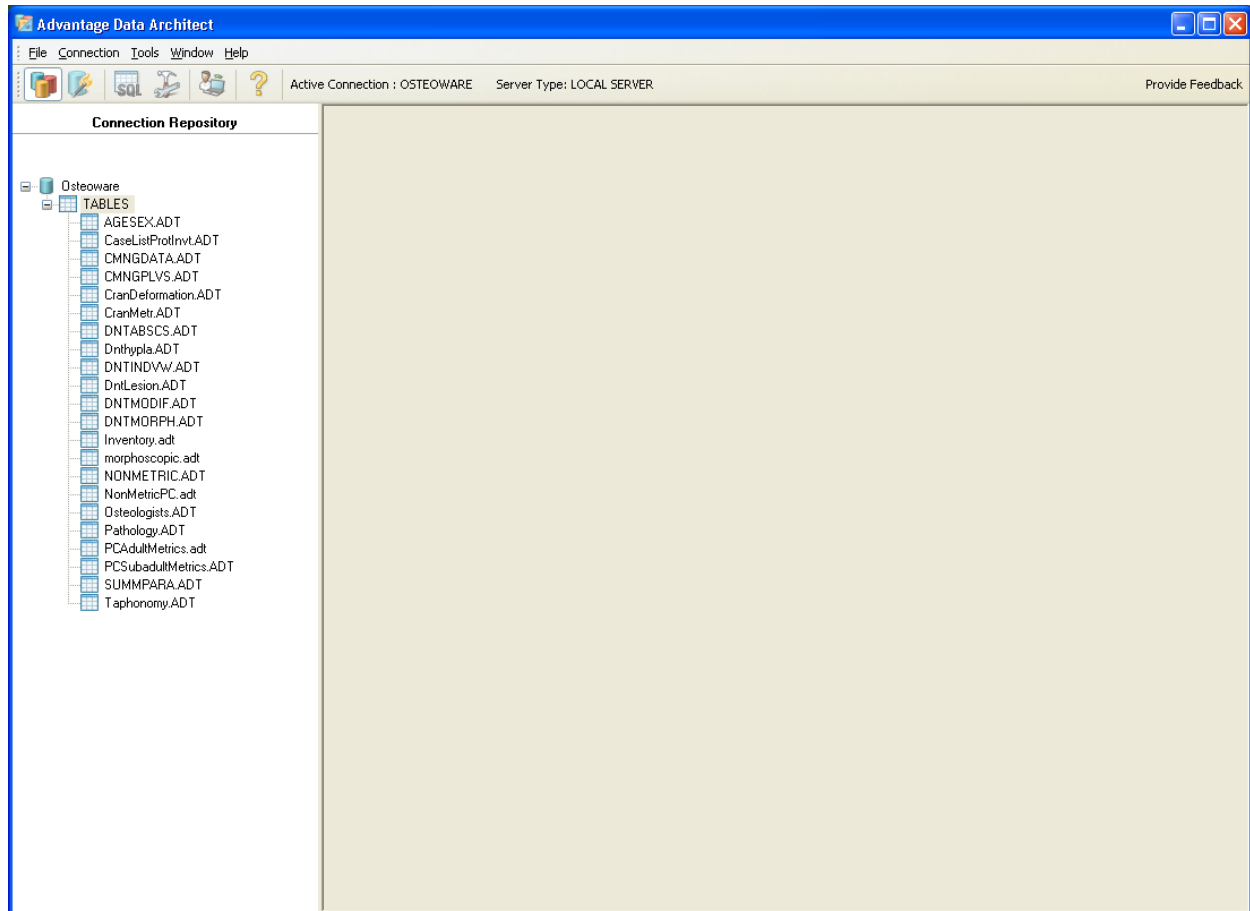
... and to the set of database tables located in the C:\Osteoware\ProtData folder.

Click 'OK'



2-4 Provide a Database Name (continued):

On the left side of the Advantage Data Architect™ screen, in the 'Connection Repository' window, you should now see your database name (Osteoware in the screenshot below), and if you click on the + symbol beside the blue cylinder and then click on the + beside 'Tables', a drop down list of all the database tables in *Osteoware* will be displayed.



SECTION 3: Advanced Data Table Editing; Adding Burial or Feature Numbers

PLEASE NOTE: At this time the *Osteoware* graphic user interface (GUI) does not allow you to enter your own unique burial feature numbers directly via the GUI. This is planned for future versions. *However do not despair!*

There is a method to enter unique burial feature numbers directly into the database through Advantage Data Architect™. Be aware that while Advantage Data Architect™ looks and has some limited functionality of spreadsheet program, it is not. For instance, there is no 'Undo' feature so if you mistakenly delete a row or more of data you have no recourse to recover it unless you have previously backed up the data elsewhere.

PLEASE NOTE: At this time before you edit the database table make sure you back up the **Protdata** folder as outlined in **SECTION 4** below.

3-1 The CaseListProtInvt Table:

Double click on the database table named '**CaseListProtInvt**' found in the 'Connection Repository' window and you will see a list of the test **Catkey** numbers as they appear in the Osteoware GUI. '**CaseListProtInvt**' is the master database table where you will add burial feature numbers. The column/field 'Catkey' is short form for 'Catalog Key', a unique identifying number for collections at the Smithsonian Institution.

PLEASE NOTE: Do not change the name of this column 'Catkey' (underlined in amber in the screenshot below) to suit your personal nomenclature, as this will break software links and have far reaching negative effects in the database and Osteoware GUI.

CATKEY	INDIV	TRACKNO	SkellInv	Handfoot	AgeandSex	DentInv	Dentmorph	Taphonomy	Pathology
Z333444	0	37	X	X	X	X	-	X	X
Z333444	A	1	X	-	X	X	-	X	X
Z333444	B	0	X	X	X	X	-	X	X
Z333444	C	0	X	X	X	X	-	X	X
Z333444	D	0	X	X	X	-	-	X	X
Z333444	E	0	X	X	X	-	-	X	X
Z333444	F	0	X	X	X	X	-	X	X
Z333444	G	0	X	X	X	X	-	X	X
Z333444	H	0	X	X	X	X	-	X	X
Z333444	I	0	X	X	X	X	-	X	X
Z333444	J	0	X	X	X	X	X	X	X
Z333444	K	0	X	X	X	X	X	X	X
Z333444	L	0	X	X	X	X	X	X	X
Z333444	M	0	X	X	X	X	X	X	X
Z333444	N	0	X	X	X	X	X	X	X
Z333444	O	0	X	X	X	X	X	X	X
Z333445	0	1	X	X	X	X	X	X	X
Z333445	A	0	X	X	X	X	X	X	X

3-2 Data entry in 'CaseListProtInvt' – *Things to Consider...*

Before you can enter any of your own osteology data into the *Osteoware* GUI you must add your own **Catkey** numbers to the database. All you have to do is populate the '**CaseListProtInvt**' database table with a series of **unique** alphanumeric values relevant to you/your institution before you enter data into *Osteoware*. *Future versions of the Osteoware will allow you to upload your own catkey numbers directly into the database.* After catkey numbers are entered (see below), you may simply access them within the *Osteoware* program when you enter the osteology data.

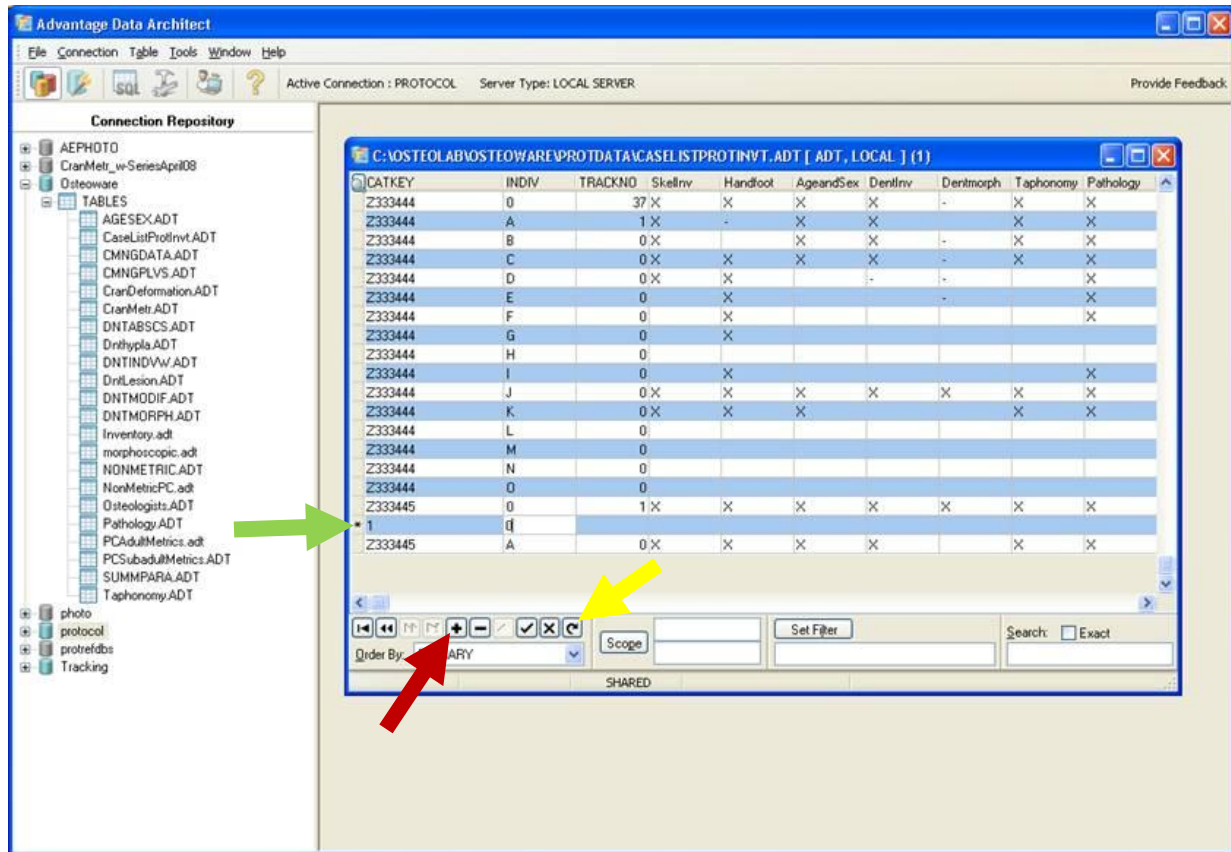
PLEASE NOTE: The current method of catkey number entry was established to provide secure access to the database by a single person such as a lab manager. This person would be the only individual who could add new catkey numbers to the database. This is a powerful security feature that some of you may wish to continue to implement in the future if students are working with your database.

Editing the database through Advantage Data Architect™ can have unexpected consequences, such as if you make a mistake and delete many rows there is no 'undo' feature in relational databases. *Please keep that in mind and backup your data folder before any editing!*

3-3 Populating 'Catkey' in 'CaseListProtInvt':

To enter catkey numbers within the 'CaseListProtInvt' table, and have them show up in the *Osteoware* GUI for osteology data entry, refer to the screen shot below and do the following:

- a) There is a horizontal selection tool bar at the bottom of the window (see screen shot below), click on the + button (**red arrow**), and it will add an empty row to the database (**green arrow**), where you add your burial/feature/catkey number in the empty 'Catkey' field.
- b) Make sure in that same row you insert a '0' (zero) in the 'INDIV' column. This column is for other individuals found commingled in the burial feature after excavation, such as discovered in subsequent lab analysis. Thus you can add other individuals such as A, B, C ... to any burial feature number within the *Osteoware* GUI itself at any time during lab analysis.
- c) In the 'Prefix' column add a P, this means Physical Anthropology rather than an Archaeology record – a vestige of the Smithsonian cataloging system.
- d) Under the 'RepatSeries' column (again a vestigial field name of the Smithsonian system) you can add any label you like (you can see this is where TEST1 appears for the test data provided). This will help to organize data right inside the *Osteoware* GUI for you. Use this field to separate one geographical unit (such as state, province, county *et cetera*) from another, or assign archaeological sites, or if a large archaeological site itself is divided into some other meaningful spacial/temporal division then all burial features/catkeys from one division could simply have your site-specific nomenclature in this column – **PLEASE NOTE:** do NOT repeat catkeys across arbitrary divisions-- each burial feature/catkey number should be unique!!! *An apology if this is already obvious to you.*
- e) Under the 'Catkey Active' column, just to the right from the 'RepatSeries' column, put a 'Y', another vestige of the Smithsonian system.
- f) **Refresh** the table to double check your entries by hitting the curved arrow button (**yellow arrow**), this will update the database table on your display screen.
- g) Also, as mentioned, there are a number of other vestigial columns in the database from the Smithsonian version (such as Case Officer...) which you do not have to fill in; however do not delete them either, it may affect software links within the *Osteoware* GUI at this time.



3-4 Open or Re-open Osteoware:

Close the 'CaseListProtInvt' table, and the Advantage Data Architect™ software if you like, then close and open *Osteoware* (if it was left open during database editing) to refresh your display.

On the Data Subset list (upper left of the *Osteoware* screenshot below), click the down arrow and a drop down list should appear with the 'RepatSeries' subset name you created in the 'CaseListProtInvt' database table. In the screenshot below you can see 'My Site' was added to the database table and now appears as a subset. On the right side the Catkeys that you entered should now appear in the display list/table (Alpha 1 and 2 were added as an example only).

Osteoware 2.4.026

Data Subset: My Site
 Catkey: Alpha 1
 Individual:
 Tracking #:

My Site
 My Site
 TEST1 Incomplete records only

Inventory
 Age and Sex
 Pathology
 Taphonomy
 Postcranial Metrics
 Summary paragraph

Dental Inv/Dev/Path
 Dental Morphology
 Cranial Nonmetrics
 Macromorphoscopies
 Cranial Deformation
 Cranometrics
 Photo request
 X-ray request

Add Individual
 Track

CATKEY	INDIV	Loc	Trk
Alpha 1	0		
Alpha 2	0		

Exit

SECTION 4: Back up your database

If you have entered any osteology data you would like to keep, then ensure that you regularly back up the **ProtData** folder found inside the **C:\Osteoware** directory.

PLEASE NOTE: The **Protdata** folder contains all your database tables in Advantage Data Architect™ format (.adt and .adi file extensions).

Simply **copy and paste** the ProtData folder to a new location, preferably another drive, external drive, or network drive. You should do this regularly, perhaps as often as every day or after particularly intense data entry sessions.

SECTION 5: Installing the latest beta release

As happens with all software releases, bugs in the software are discovered and get resolved on an ongoing basis. The *Osteoware* project programmer, Dr. Steve Ousley, resolves these bugs and a new version of *Osteoware* is released and made available on the **Software Downloads** page of the website <http://www.osteoware.si.edu>.

5-1 Back up your database folder:

Back up your **Protdata** database folder to another location as outlined in **SECTION 4** above.

5-2 Delete your old beta install:

Simply drag the **C:\Osteoware** folder to the trash folder of your computer.

*Please ensure you backed up the **Protdata** database folder first.*

5-3 Replace your old beta install:

Download the latest *Osteoware* version and repeat **Section 1**, the **Basic Installation**.

In brief: unzip the download, drag the unpacked Osteoware folder to your C:\ drive, where the old install was. It is that simple.

PLEASE NOTE: You DO NOT have to reinstall Advantage Data Architect™ ever again, but may be prompted to update the software on occasion.

5-4 Replace your **Protdata** database folder

If you have saved data in your backed up **Protdata** folder, then simply copy the Protdata folder and replace the **C:\Osteoware\ ProtData** folder you just installed; which contains only the default test data.

SECTION 6: Working with Osteoware on the network

The Osteoware database can be placed on a networked drive and accessed by up to five computers at a time (a limit of the Advantage Data Architect™).

To network the *Osteoware* database, use the simple text editors **Notepad** or **WordPad** (present in all Windows operating systems) to open the **Protocol.ini** file that resides in the Osteoware main folder. As an aside, Protocol is the name of the original Smithsonian version of the program that has become the public release Osteoware.

The **Protocol.ini** file contains the following simple code:

```
[File Location]
dir=C:\OSTEOWARE\PROTDATA\
dir2=C:\Program
Files\Borland\Delphi6\Projects\SMITHSON\REPAT\DATENTRY\ProtMain\protdata\
[Site]
AtSI=N
```

Change the following line in the **Protocol.ini** code that points to the default location of the folder containing the database tables...

```
dir=C:\OSTEOWARE\PROTDATA\
```

... to a network location of your choice. Make sure to relocate the **ProtData** folder from the Osteoware main folder to this network location, since it contains the database tables. If your institution has IT support they will be able to assist you with the network path. Install Osteoware on up to five computers, making sure to change each Protocol.ini to match the network path.

For example, at the Smithsonian the Protocol.ini is networked as seen below. Do not change the AtSI= from N to Y, as this is only for the Smithsonian version of the software.

[File Location]

```
dir=\\Si-msfsc101r1\Data5\NMNH\MNH-REPAT2\VOL1\osteolab\
```

```
dir2=C:\Program
```

```
Files\Borland\Delphi6\Projects\SMITHSON\REPAT\DATENTRY\ProtMain\protdata\
```

[Site]

```
AtSI=Y
```

Please do not hesitate to post a message on the Osteoware support forum if you have any problems, find a bug, or need more details. The Osteoware support forum is found on the Osteoware website <http://www.osteoware.si.edu>